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United States
Department of
Agriculture

Soil
Conservation
Service

Reno
Nevada



Nevada Water Supply Outlook

January 1, 1986



A57 46/11

NV

Foreward

How Forecasts Are Made

Most of the annual streamflow in the Western United States originates as snowfall. This snowfall accumulates high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are viewed in conjunction with snowpack data to prepare runoff forecasts. This report presents a comprehensive picture of water supply outlook conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data and narratives describing current conditions.

Streamflow forecasts are cooperatively generated by Soil Conservation Service and National Weather Service hydrologists. Forecasts become more accurate as more data affecting runoff becomes known. For this reason, forecasts are issued that reflect three future precipitation conditions — Below Normal, Average, and Above Normal. These forecasts are termed reasonable minimum, most probable, and reasonable maximum. Actual streamflow can be expected to fall between the lower and upper forecast values eight out of ten years.

Snowpack data are obtained by using a combination of manual and automated measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation, temperature, and other parameters are monitored on a daily basis and transmitted via radio telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

For More Information

Copies of Monthly Water Supply Outlook Reports and other reports may be obtained from the states listed below. Because of the limited space, snow survey measurements are not published in monthly reports. An annual snow survey data summary is published by the Soil Conservation Service for each of the western states. Historical snow survey data may be obtained at those same offices.

STATE	ADDRESS
Alaska	201 East 9th Ave., Suite 300, Anchorage, AK 99501-3687
Arizona	201 East Indianola, Suite 200, Phoenix, AZ 85012
Colorado (New Mexico)	2490 West 26th Ave., Denver, CO 80211
Idaho	304 North 8th Street, Room 345, Boise, ID 83702
Montana	10 East Babcock, Room 443, Federal Building, Bozeman, MT 59715
Nevada	1201 Terminal Way, Second Floor, Reno, NV 89502
Oregon	1220 Southwest 3rd Ave., 16th Floor, Portland, OR 97204
Utah	4402 Federal Building, 125 South State Street, Salt Lake City, UT 84147
Washington	360 U.S. Court House, Spokane, WA 99201
Wyoming	Federal Building, 100 East "B" Street, Casper, WY 82602

In addition to state reports, a Water Supply Outlook for the Western United States is published by the Soil Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 547, Portland, OR 97209.

Published by other agencies:

Water Supply Outlook Reports prepared by other agencies include: California — Snow Survey Branch, California Department of Water Resources, P.O. Box 388, Sacramento, CA 95802; British Columbia — The Ministry of Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia, V8V 1X5; Yukon Territory — Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory, Y1A 3V1; Alberta, Saskatchewan, and N.W.T. — The Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta, T3C 1A6.

Nevada Water Supply Outlook

and

Federal - State - Private Cooperative Snow Surveys

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Released By

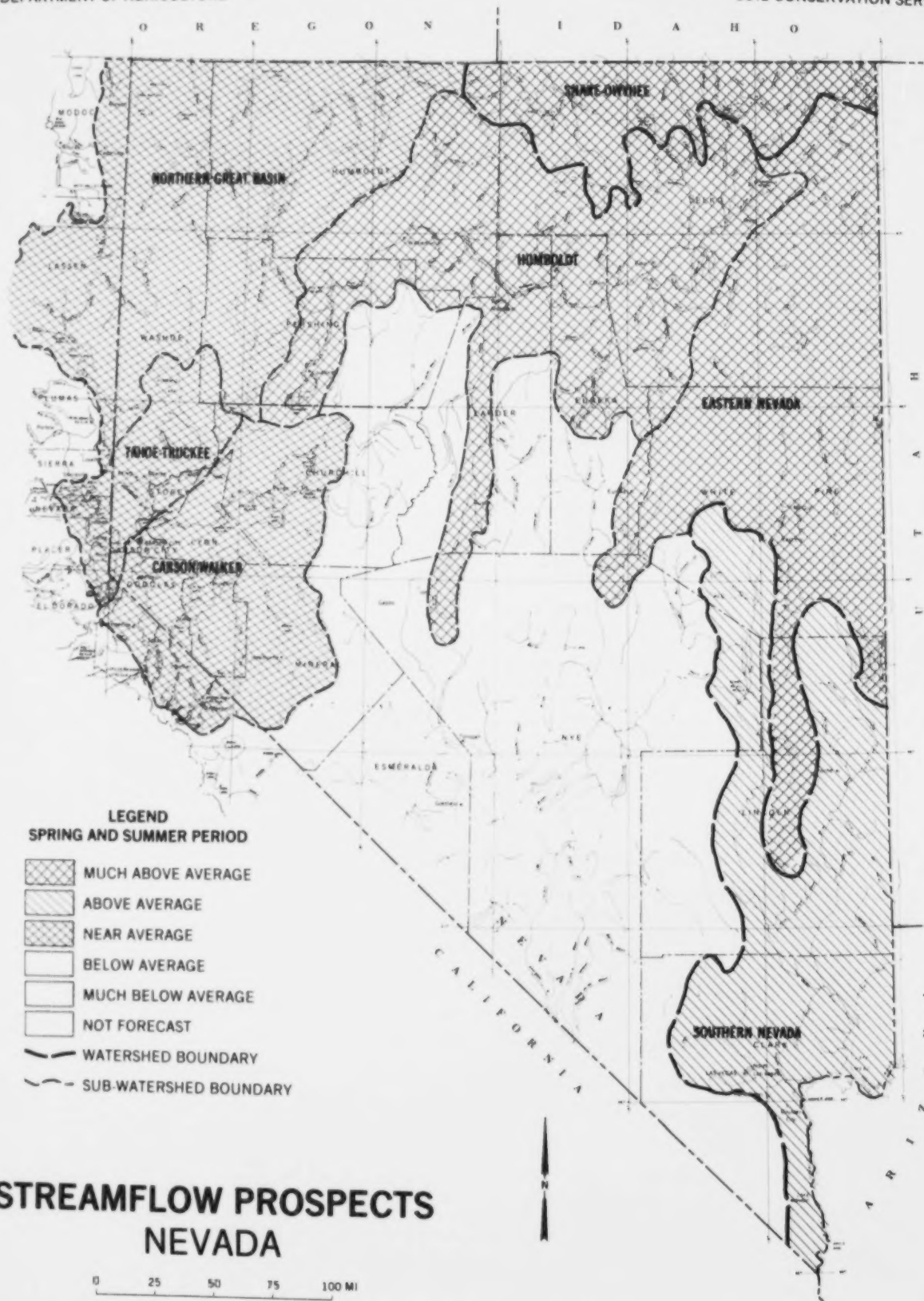
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In Cooperation With

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GENERAL OUTLOOK

SUMMARY:

WESTERN NEVADA SNOWPACK ACCUMULATIONS ARE AVERAGE WHILE NORTHERN AND EASTERN NEVADA ARE SIGNIFICANTLY ABOVE AVERAGE. PRECIPITATION AT MOST SNOTEL SITES WAS BELOW AVERAGE FOR DECEMBER, BUT IS NEAR AVERAGE FOR THE WATER YEAR. RESERVOIR STORAGE IN THE SEVEN MONITORED RESERVOIRS AND LAKES IS NEAR AVERAGE.

SNOWPACK:

Snowpack conditions in the Tahoe, Truckee, Carson, and Walker basins are average as of January 1. Snow accumulations in northern and eastern Nevada are slightly above to significantly above average. The Snake Basin is 10-15 percent above January 1 averages while the Owyhee, Humboldt and Eastern Nevada basins are much above average. The Northern Nevada basin is approximately 10 percent above average.

PRECIPITATION:

December precipitation totals ranged from slightly below average to much above average. The Snake and Owyhee basins were near average for the month. Water year accumulations in the Tahoe-Truckee basin is near average while all other basins are above to much above average. The Northern Great and Humboldt basins are approximately 120 percent of January 1 averages. The Carson-Walker basin is 115 percent of average.

RESERVOIRS:

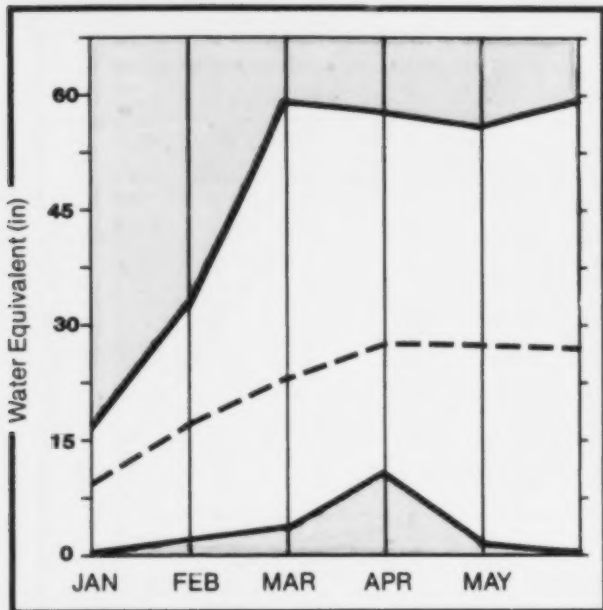
Water storage is good throughout the state. Storage facilities in the Tahoe-Truckee, Humboldt, and Snake-Owyhee basins are well above average for January 1. Storage in the Carson-Walker basin is approximately 15 percent below average. Total storage in the seven major lakes and reservoirs was 792,000 acre feet.

STREAMFLOW:

Streamflow forecasts for western Nevada are near or slightly below average. Forecast values for all northern Nevada rivers and creeks are much above average. Streamflow forecast values range from 5 percent below average for the Carson River at Carson City to 35 percent above average for the Franklin River near Arthur, Nevada.

TAHOE & TRUCKEE BASINS

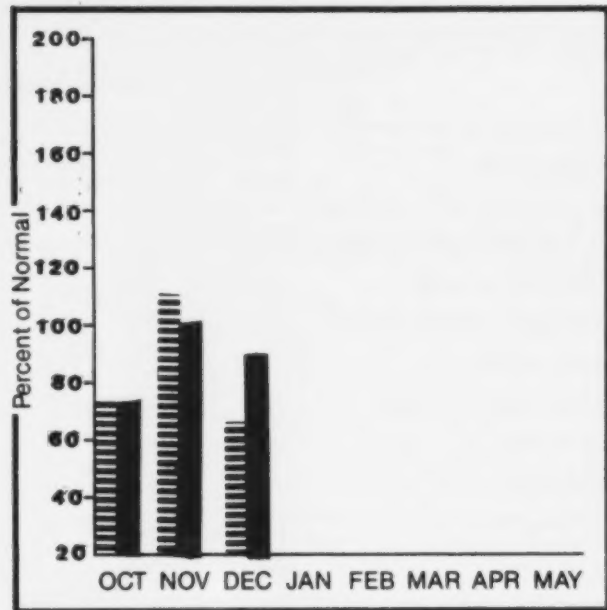
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - -
 Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation
 Year to date precipitation

WATER SUPPLY OUTLOOK:

Snowpack accumulations are near normal. This year's water content is approximately 10 percent below the values recorded last year. Reservoir storage is excellent with all storage facilities in the basin at or well above average. Storage in Boca, Prosser, and Stampede reservoirs is less than the amount stored last year at this date. Streamflow forecasts are average to slightly above average for Truckee River gaging stations.

For more information contact your local Soil Conservation Service office.

TAHOE & TRUCKEE BASINS

STREAMFLOW FORECASTS

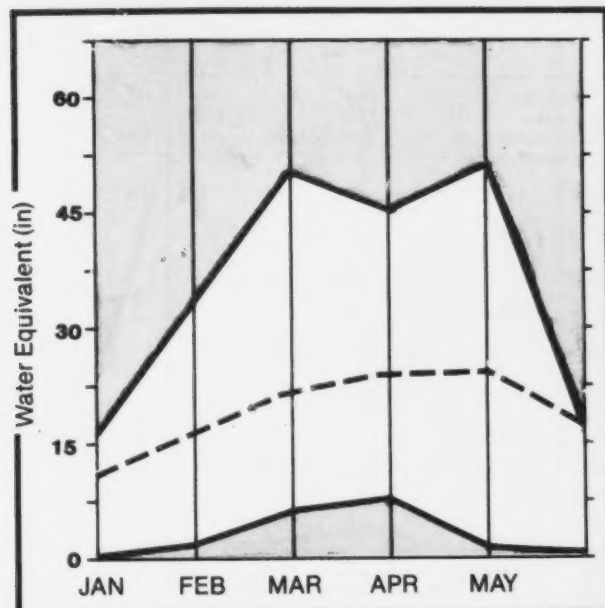
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
LAKE TAHOE RISE (assume gates closed APR-HIG)		1.3	1.4	100.0	215.8	0.0				
TRUCKEE RIVER at Farad, Ca	APR-JUL	269.0	265.0	98.0	181.4	19.7				
LITTLE TRUCKEE RIVER above Boca, Ca	APR-JUL	92.5	97.0	104.0	189.2	34.6				
PYRAMID LAKE RISE	OCT-HIG	1.0	-0.2		100.0	8.0				
STEAMBOAT CREEK at Steamboat, Nv	APR-JUL	5.2	4.8	92.0	178.1	19.2				
SAGEHEN CREEK, Ca	APR-JUL	6.5	6.2	95.0	184.6	15.4				
GALENA CREEK nr Steamboat, Nv	APR-JUL	4.4	4.3	97.0	181.8	22.7				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE	
BOCA RESERVOIR	40.9	22.3	23.0	17.0	LAKE TAHOE RISE	8	93	107
LAKE TAHOE	744.6	428.2	543.0	359.2	TRUCKEE BASIN	8	102	108
PROSSER RESERVOIR	28.6	9.5	9.0	7.5	LITTLE TRUCKEE RIVER	3	105	108
STAMPEDE RESERVOIR	226.5	118.3	192.0	95.6	SAGE HEN CREEK	3	105	108
					GALENA CREEK	3	99	104
					STEAMBOAT DRAINAGE	2	98	98
					PYRAMID LAKE	16	98	108

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

CARSON & WALKER BASINS

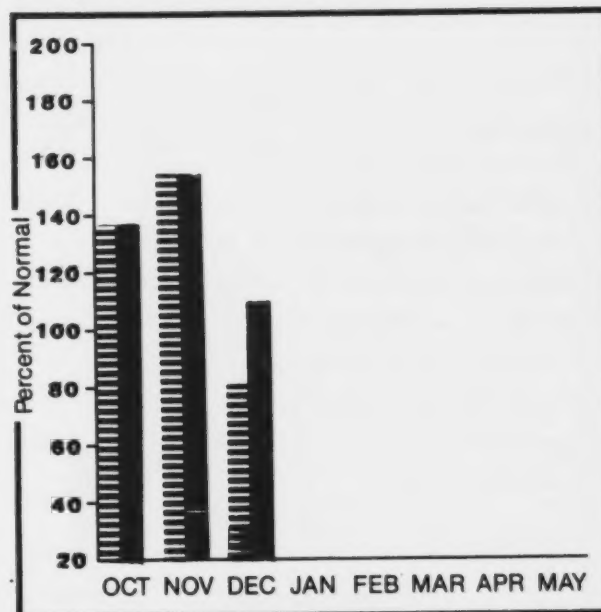
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - -
Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

Water content values are average for January 1. Reservoir storage is 10-15 percent below average for the month. Bridgeport and Topaz reservoirs in the Walker drainage are 15 percent below average while Lahontan reservoir in the Carson drainage is 10 percent below average. Bridgeport and Lahontan reservoirs have less stored water this year than last while Topaz Lake has slightly more stored water. Streamflow forecasts are average to slightly below average.

**For more information contact your local Soil
Conservation Service office.**

CARSON & WALKER BASINS

STREAMFLOW FORECASTS

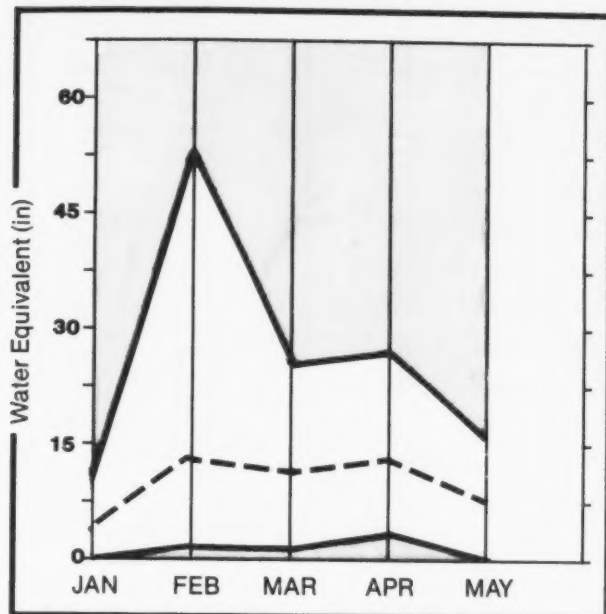
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
E.F. CARSON RIVER near Gardnerville, Apr	APR-JUL	187.0	197.0	105.0	144.0	65.0	1846		200	JUN 21
W.F. CARSON RIVER at Woodfords, Ca	APR-JUL	53.0	54.0	101.0	139.6	66.0				
CARSON RIVER near Carson City, Nv	APR-JUL	182.0	186.0	102.0	172.0	32.4	1900			
CARSON RIVER near Ft. Churchill, Nv	APR-JUL	166.0	169.0	101.0	184.9	18.7	1837			
EAST WALKER RIVER near Bridgeport, C	APR-JUL	66.0	68.0	103.0	169.7	36.4				
WEST WALKER RIVER near Coleville, Ca	APR-JUL	148.0	155.0	104.0	157.4	52.0	1573			
WALKER LAKE RISE	OCT-MIG	1.0	-0.3		100.0	3.0				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	THIS YEAR	LAST YEAR	AVERAGE	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
BRIDGEPORT RESERVOIR	42.5	18.7	30.0	23.7	E. CARSON RIVER	5	74	102
LAHONTAN RESERVOIR	295.1	145.5	148.0	165.6	W. CARSON RIVER	3	76	98
TOPAZ RESERVOIR	59.4	20.6	13.0	26.9	CARSON RIVER at Carson Ci	4	71	100
					CARSON RIVER at Ft. Churc	4	71	100
					E. WALKER RIVER nr Bridge	3	77	102
					W. WALKER RIVER nr Colevi	4	84	101
					WALKER LAKE RISE	4	84	101

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

HUMBOLDT BASIN

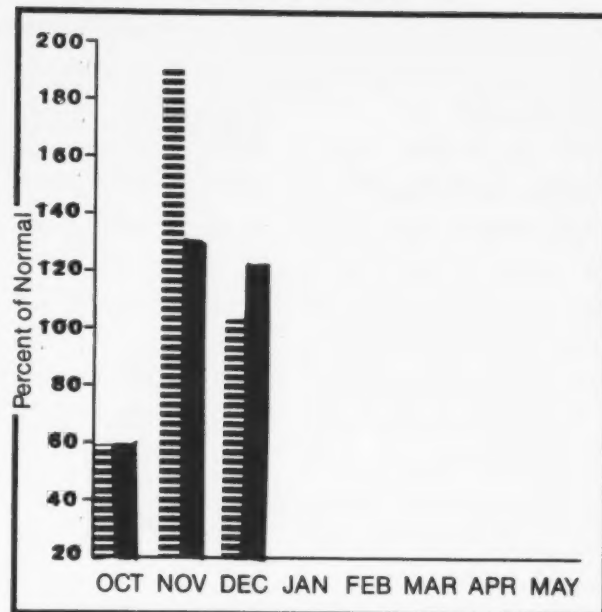
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - - -
Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

Snowpack accumulations are significantly above average for the fourth consecutive year. The January 1 snowpack is approximately 200 percent of average. Basin water year precipitation is above average by about 10 percent. Storage in Rye Patch Reservoir is approximately 30 percent above average for this date. Streamflow forecasts for the Humboldt River are 185 percent of average.

For more information contact your local Soil Conservation Service office.

HUMBOLDT BASIN

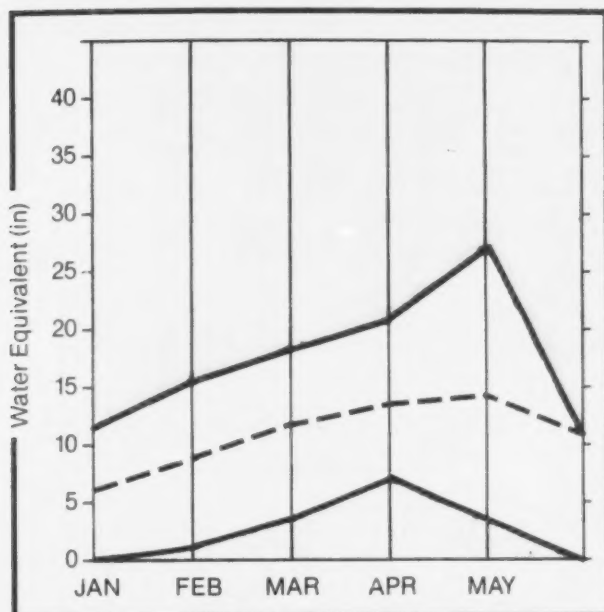
STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
HUMBOLDT RIVER at Palisades	APR-JUL	230.0	275.0	119.0	212.6	26.5				
HUMBOLDT RIVER at Comus	APR-JUL	173.0	202.0	116.0	239.9	13.6				
S FORK HUMBOLDT RIVER at Dixie	APR-JUL	75.0	88.0	117.0	201.3	33.3				
NF HUMBOLDT RIVER at Devils Gate	APR-JUL	34.8	40.0	114.0	215.5	14.4				
MARY'S RIVER nr Deeth	APR-JUL	36.9	40.0	108.0	173.4	43.4				
MARTIN CREEK nr Paradise Hv	APR-JUL	15.8	17.4	110.0	177.2	38.0				
LAMOILLE CREEK nr Lamoille	APR-JUL	28.7	29.0	101.0	149.8	52.3				
PEESE PIVER nr Ione Hv	APR-JUL	6.6	7.0	106.0	197.0	15.2				
LITTLE HUMBOLDT RIVER nr Paradise Va	APR-JUL	9.7	11.2	115.0	185.6	51.5				
ROCK CREEK nr Battle Mtn.	APR-JUL	16.0	17.6	110.0	193.7	25.0				
KINGSTON CREEK nr Austin, Hv	APR-JUL	3.3	3.9	118.0	212.1	30.3				
MCDERMITT CREEK nr McDermitt	APR-JUL	12.0	14.0	116.0	183.3	50.0				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE	
RYE PATCH RESERVOIR	194.3	118.5	158.0	88.7	LAMOILLE CREEK	1	105	226
					S. FORK HUMBOLDT	4	109	171
					MARY'S RIVER	3	75	112
					N. FORK HUMBOLDT	3	167	232
					HUMBOLDT RIVER at Palisad	6	116	187
					HUMBOLDT RIVER at Comus	6	116	187
					KINGSTON CREEK	1	89	192
					LITTLE HUMBOLDT RIVER	1	123	286

SNAKE & OXYHEE BASINS

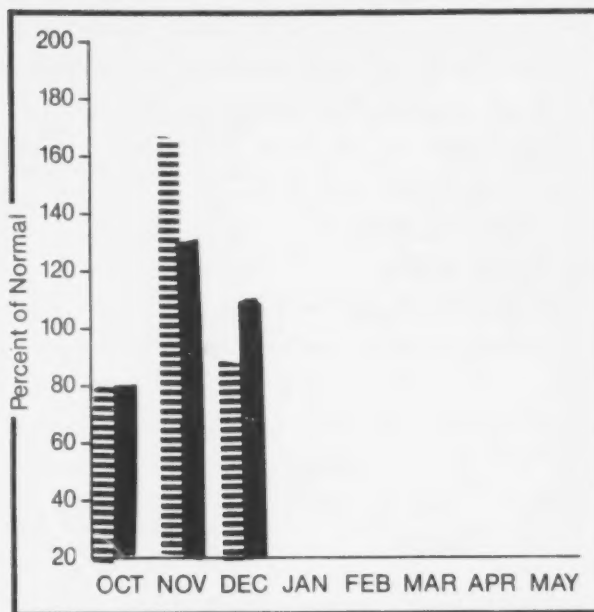
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - -
Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

The accumulated snowpack is well above average for January 1 with water content values as much as 65 percent above 20 year averages and 5 percent above last year's values. Water year precipitation is also above average. Wildhorse Reservoir is approximately 40 percent above average for this time of year, but is well below the amount stored last year. Streamflow forecasts for the three gauging stations within the basins are 110 percent of average.

For more information contact your local Soil Conservation Service office.

SNAKE & Owyhee Basins

STREAMFLOW FORECASTS

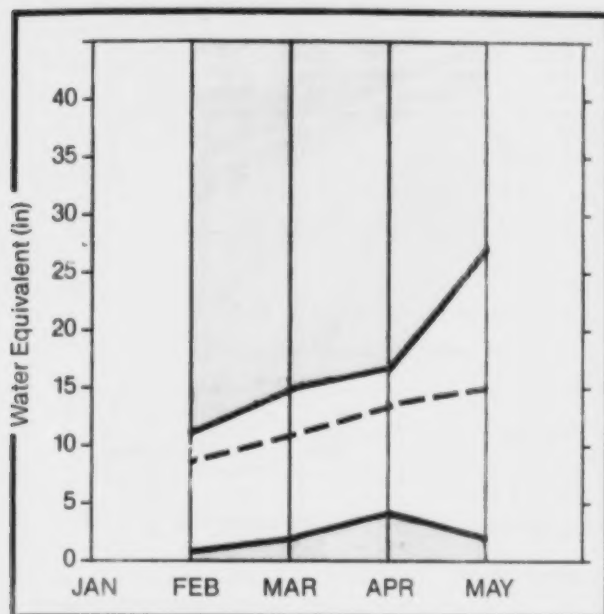
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
OWYHEE RIVER nr Gold Creek	APR-JUL	23.4	26.0	111.0	188.0	34.2				
OWYHEE RIVER nr Owyhee	APR-JUL	85.4	96.0	112.0	185.0	39.8				
S FORK OWYHEE nr White Rock, Wv	APR-JUL	83.0	90.0	108.0	181.9	34.9				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE	
WILDHORSE RESERVOIR	71.5	38.2	60.0	28.6	OWYHEE RIVER nr Owyhee	4	106	165
					OWYHEE RIVER nr Gold Cree	1	166	166
					S. FORK OWYHEE RIVER	4	106	165
					SALMON FALLS CREEK	3	75	112

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

EASTERN NEVADA

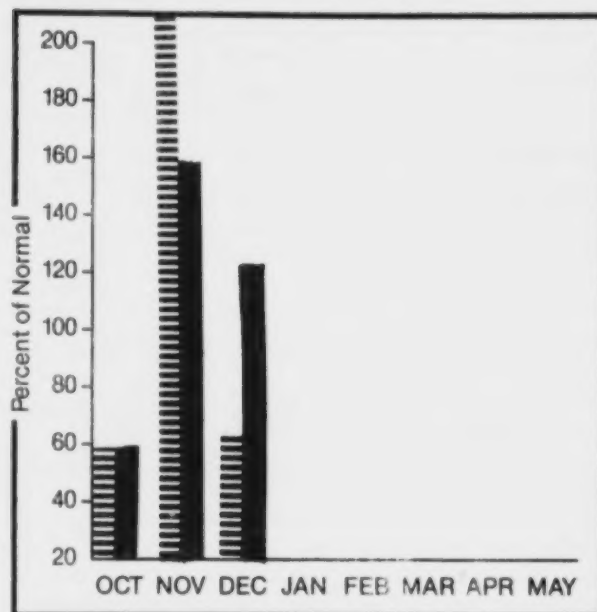
Mountain snowpack* (inches)



*Based on selected stations

Maximum Average
 Minimum Current

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Snowpack water content accumulation is well above average for January 1. The current water content is approximately equal to the amounts measured last year at this time. Streamflow forecasts for Steptoe Creek and Franklin River are above average by 20 percent and 35 percent respectively.

For more information contact your local Soil Conservation Service office.

STREAMFLOW FORECASTS

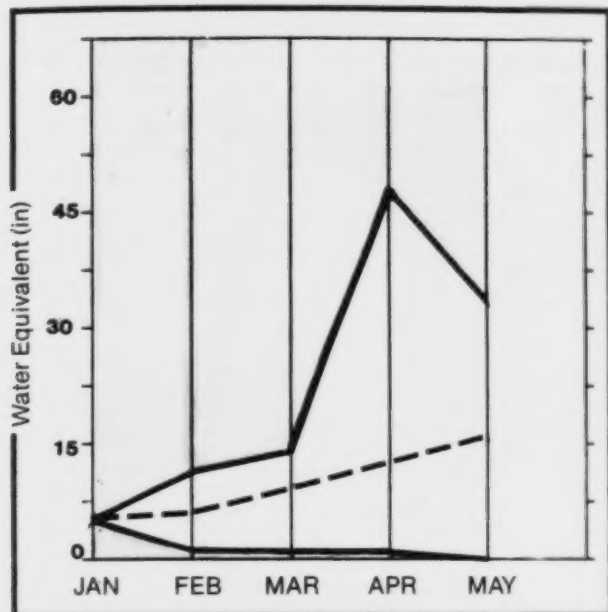
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	PEAS. MAX. (% AVE.)	PEAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
STEPTOE CREEK nr Elv	APR-JUL	2.0	2.4	119.0	200.0	50.0				
FRANKLIN RIVER nr Arthur	APR-JUL	5.9	8.0	135.0	220.3	50.8				

RESEPOVOIR STORAGE				(1000AF)	WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE	USEABLE STORAGE			WATERSHED	NO.	THIS YEAR AS % OF	
	CAPACITY	THIS	LAST	AVE.		COURSES	LAST YR.	AVERAGE
		1 YEAR	YEAR			AVE.D		
					FRANKLIN RIVER	1	110	155
					EASTERN NEVADA	1	88	182
					STEPTOE VALLEY	0	0	0

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

NORTHERN GREAT BASIN

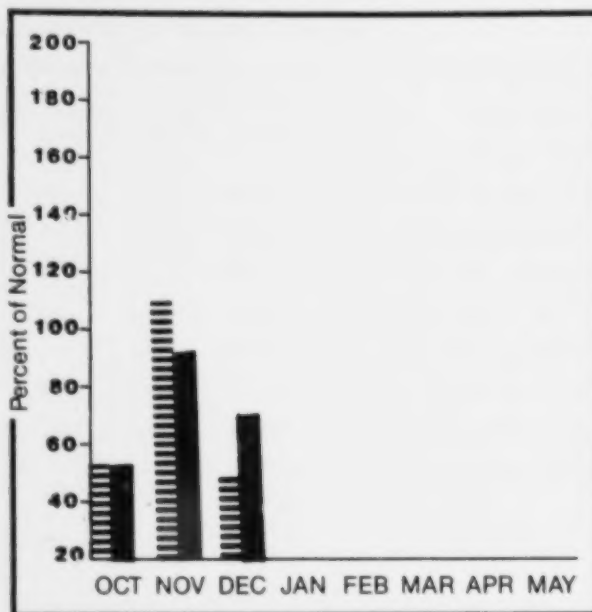
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - -
 Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Snowpack accumulations in this basin are variable. Water content values in the western and southern portions are below average while water content in the eastern and northern portions is above average. All water content values are below those reported last year. Streamflow forecasts for the Quinn River, East Fork Quinn River, and McDermitt Creek are approximately 15 percent above average. Streamflow forecast values for Deep Creek, Eagle Creek, and Mill Creek are approximately 10 percent below average.

For more information contact your local Soil Conservation Service office.

NORTHERN GREAT BASIN

STREAMFLOW FORECASTS

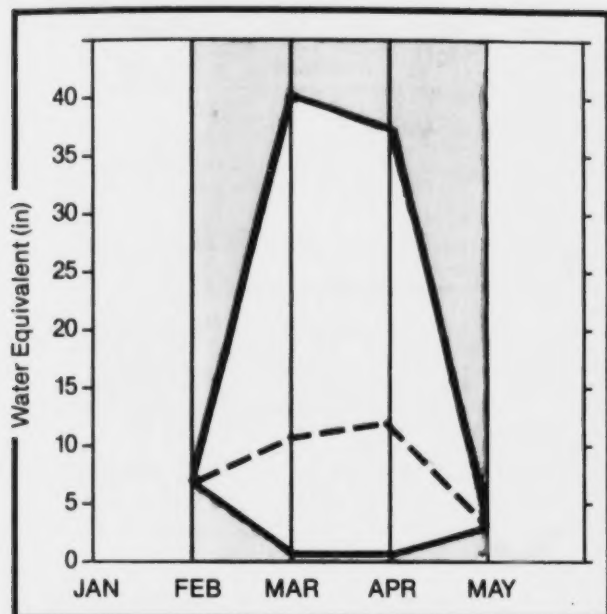
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
BIDWELL CREEK nr Fort Bidwell	APR-JUL	12.0	11.3	94.0	175.0	16.7				
DEEP CREEK nr Cedarville, Ca	APR-JUL	3.6	3.2	88.0	166.7	0.0				
EAGLE CREEK nr Eagleville, Ca	APR-JUL	4.3	4.1	95.0	162.8	23.3				
MILL CREEK nr Cedarville, Ca	APR-JUL	4.1	3.8	92.0	170.7	24.4				
QUINN RIVER nr McDermitt, Nv	APR-JUL	16.0	16.8	105.0	175.0	37.5				
E. FORK QUINN RIVER nr McDermitt	APR-JUL	13.0	14.0	107.0	176.9	38.5				
MCDERMITT CREEK nr McDermitt	APR-JUL	12.0	14.0	116.0	183.3	50.0				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE	
					BIDWELL	1	47	70
					MILL CREEK	1	47	70
					DEEP CREEK	1	47	70
					EAGLE CREEK	1	47	70
					QUINN RIVER	2	69	116
					E. FORK QUINN	2	69	116
					MCDERMITT CREEK	2	69	116

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

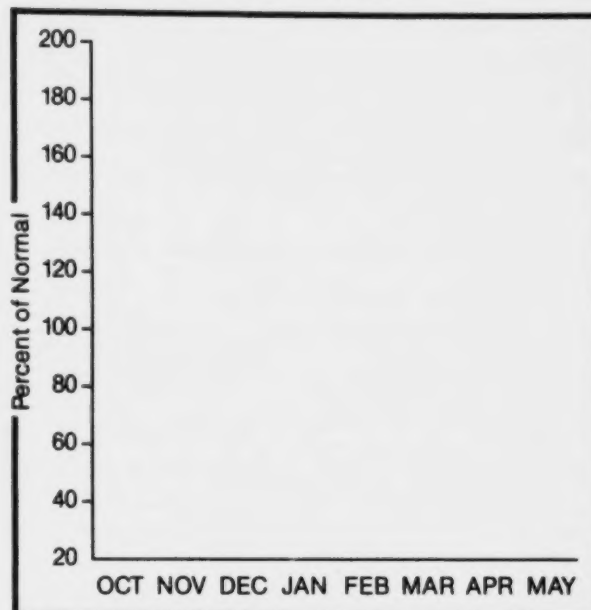
SOUTHERN NEVADA

Mountain snowpack* (inches)



*Based on selected stations

Precipitation* (percent of normal)



*Based on selected stations

Maximum
Minimum

Average
Current

Monthly precipitation

Year to date precipitation

WATER SUPPLY OUTLOOK:

Snowpack accumulations in the mountains supplying water for the Virgin River are approximately 15 percent above average for January 1. Storage in Lake Mohave is about 10 percent below average while storage in Lake Mead is about 30 percent above average. Both storage values are less than those recorded last year at this time. The streamflow forecast for the Virgin River near Hurricane, Utah is 85 percent above the 20 year average.

For more information contact your local Soil Conservation Service office.

SOUTHERN NEVADA

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	PEAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
VIRGIN RIVER near Hurricane, UT	APR-JUL	48.0	90.0	187.0	252.1	145.8				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS		
RESERVOIR	USEABLE CAPACITY	USEABLE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE AVE.	WATERSHED	NO. COURSES AVERAGED	THIS YEAR AS % OF LAST YR. AVERAGE
LAKE MOHAVE	1810.0	1422.0	1523.0	1603.0	VIRGIN RIVER at Littlefie	3	60 116
LAKE MEAD	26159.0	23683.0	24070.0	18176.0	VIRGIN RIVER at Hurricane	3	60 116

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

The Following Organizations Cooperate With The Soil Conservation Service In Snow Survey Work

STATE

California Cooperative Snow Surveys
California Department of Parks and Recreation
California Department of Water Resources
Colorado River Commission of Nevada
Idaho Cooperative Snow Surveys
Nevada Association of Conservation Districts
Nevada Department of Conservation & Natural Resources
 Division of Water Resources
 Nevada State Forester
 Division of Conservation Districts
Oregon Cooperative Snow Surveys
University of Nevada, Desert Research Institute
Utah Cooperative Snow Surveys

FEDERAL

Bureau of Reclamation
Forest Service
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U.S. District Court - Federal Water Master
NOAA, National Weather Service

PRIVATE

Nevada Irrigation District
Owyhee Project North Board of Control
Owyhee Project South Board of Control
Pacific Gas and Electric Company
Pershing County Water Conservation District
Sierra Pacific Power Company
Truckee - Carson Irrigation District
Walker River Irrigation District
Washoe County Water Conservancy District

Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
1201 TERMINAL WAY, SECOND FLOOR
RENO, NEVADA 89502

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**Nevada
Water Supply Outlook**

and

Federal — State — Private
Cooperative Snow Surveys



SOIL CONSERVATION SERVICE

986/2



United States
Department of
Agriculture

Soil
Conservation
Service

Reno
Nevada



Nevada Water Supply Outlook

February 1, 1986



A57.46/4: N.J.

Foreword

How Forecasts Are Made

Most of the annual streamflow in the Western United States originates as snowfall. This snowfall accumulates high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are viewed in conjunction with snowpack data to prepare runoff forecasts. This report presents a comprehensive picture of water supply outlook conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data and narratives describing current conditions.

Streamflow forecasts are cooperatively generated by Soil Conservation Service and National Weather Service hydrologists. Forecasts become more accurate as more data affecting runoff becomes known. For this reason, forecasts are issued that reflect three future precipitation conditions — Below Normal, Average, and Above Normal. These forecasts are termed reasonable minimum, most probable, and reasonable maximum. Actual streamflow can be expected to fall between the lower and upper forecast values eight out of ten years.

Snowpack data are obtained by using a combination of manual and automated measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation, temperature, and other parameters are monitored on a daily basis and transmitted via radio telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

For More Information

Copies of Monthly Water Supply Outlook Reports and other reports may be obtained from the states listed below. Because of the limited space, snow survey measurements are not published in monthly reports. An annual snow survey data summary is published by the Soil Conservation Service for each of the western states. Historical snow survey data may be obtained at those same offices.

STATE	ADDRESS
Alaska	201 East 9th Ave., Suite 300, Anchorage, AK 99501-3687
Arizona	201 East Indianola, Suite 200, Phoenix, AZ 85012
Colorado (New Mexico)	2490 West 26th Ave., Denver, CO 80211
Idaho	304 North 8th Street, Room 345, Boise, ID 83702
Montana	10 East Babcock, Room 443, Federal Building, Bozeman, MT 59715
Nevada	1201 Terminal Way, Second Floor, Reno, NV 89502
Oregon	1220 Southwest 3rd Ave., 16th Floor, Portland, OR 97204
Utah	4402 Federal Building, 125 South State Street, Salt Lake City, UT 84147
Washington	360 U.S. Court House, Spokane, WA 99201
Wyoming	Federal Building, 100 East "B" Street, Casper, WY 82602

In addition to state reports, a Water Supply Outlook for the Western United States is published by the Soil Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 547, Portland, OR 97209.

Published by other agencies:

Water Supply Outlook Reports prepared by other agencies include: California — Snow Survey Branch, California Department of Water Resources, P.O. Box 388, Sacramento, CA 95802; British Columbia — The Ministry of Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia, V8V 1X5; Yukon Territory — Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory, Y1A 3V1; Alberta, Saskatchewan, and N.W.T. — The Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta, T3C 1A6.

Nevada Water Supply Outlook

and

Federal - State - Private Cooperative Snow Surveys

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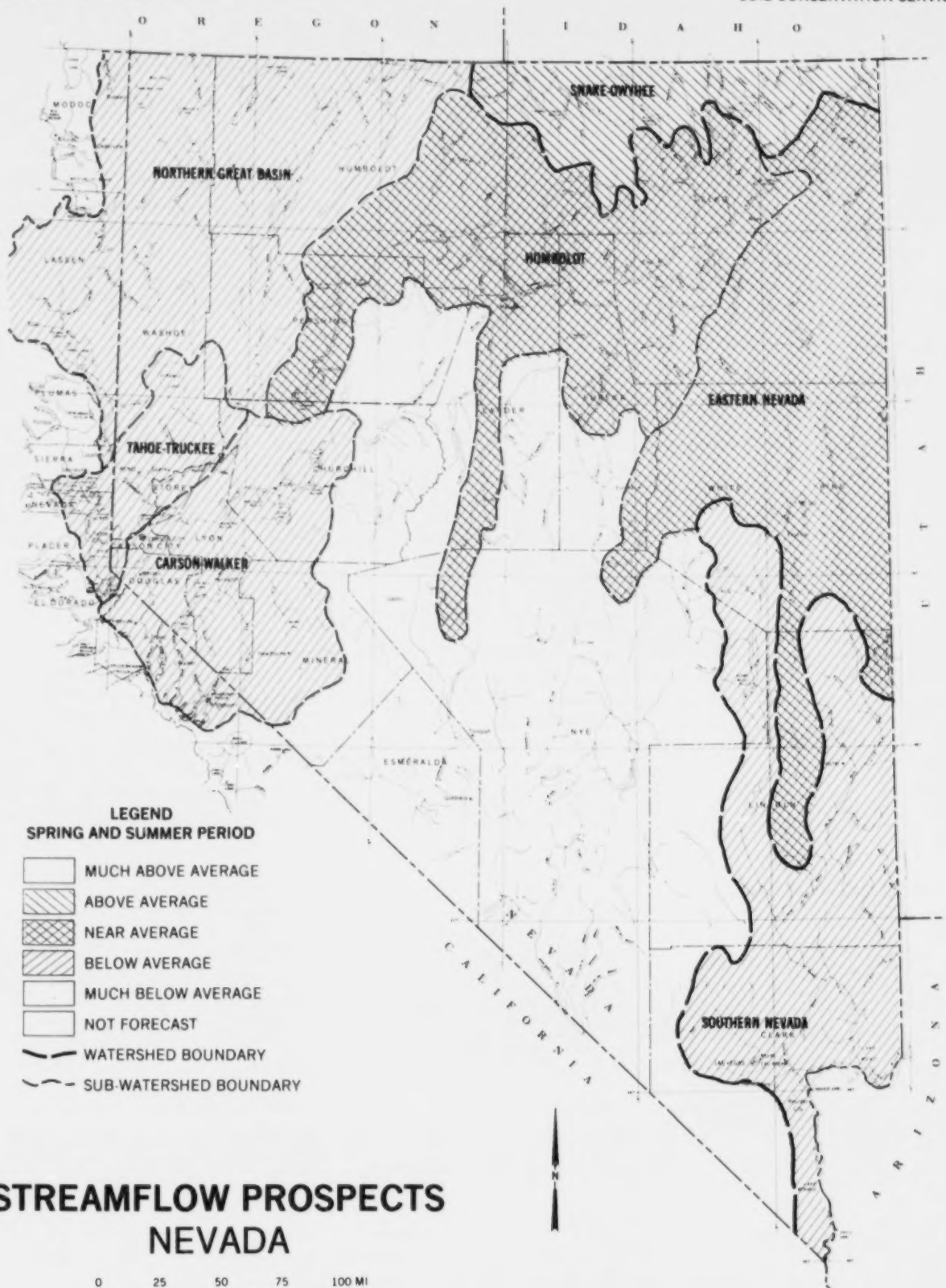
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Soil Conservation Service
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Reno, Nevada 89502

In Cooperation With

Roland D. Westergard
Director
Department of Conservation &
Natural Resources
Carson City, Nevada 89701

Programs and assistance of the United States Department of Agriculture are available without regard to race, creed, color, sex, age, or national origin.





APRIL 1985 4-R-39131

GENERAL OUTLOOK

SUMMARY:

WESTERN NEVADA SNOWPACK ACCUMULATIONS ARE AVERAGE WHILE NORTHERN AND EASTERN NEVADA ARE SIGNIFICANTLY ABOVE AVERAGE. PRECIPITATION AT MOST SNOTEL SITES WAS BELOW AVERAGE FOR DECEMBER, BUT IS NEAR AVERAGE FOR THE WATER YEAR. RESERVOIR STORAGE IN THE SEVEN MONITORED RESERVOIRS AND LAKES IS NEAR AVERAGE.

SNOWPACK:

Snowpack conditions in the Tahoe, Truckee, Carson, and Walker basins are average as of January 1. Snow accumulations in northern and eastern Nevada are slightly above to significantly above average. The Snake Basin is 10-15 percent above January 1 averages while the Owyhee, Humboldt and Eastern Nevada basins are much above average. The Northern Nevada basin is approximately 10 percent above average.

PRECIPITATION:

December precipitation totals ranged from slightly below average to much above average. The Snake and Owyhee basins were near average for the month. Water year accumulations in the Tahoe-Truckee basin is near average while all other basins are above to much above average. The Northern Great and Humboldt basins are approximately 120 percent of January 1 averages. The Carson-Walker basin is 115 percent of average.

RESERVOIRS:

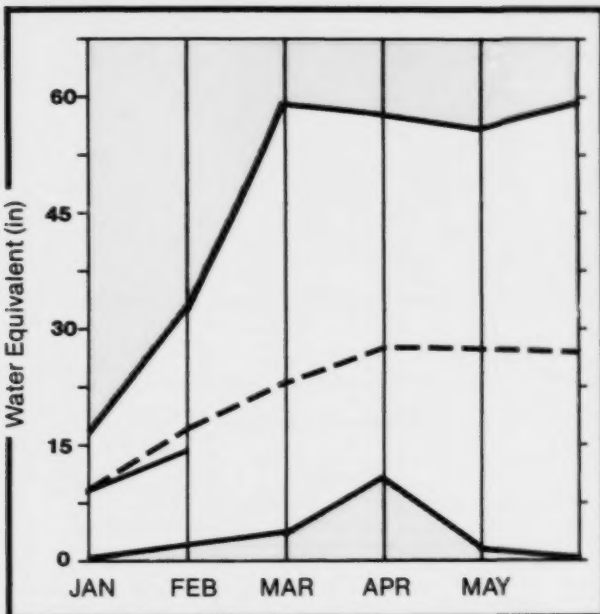
Water storage is good throughout the state. Storage facilities in the Tahoe-Truckee, Humboldt, and Snake-Owyhee basins are well above average for January 1. Storage in the Carson-Walker basin is approximately 15 percent below average. Total storage in the seven major lakes and reservoirs was 792,000 acre feet.

STREAMFLOW:

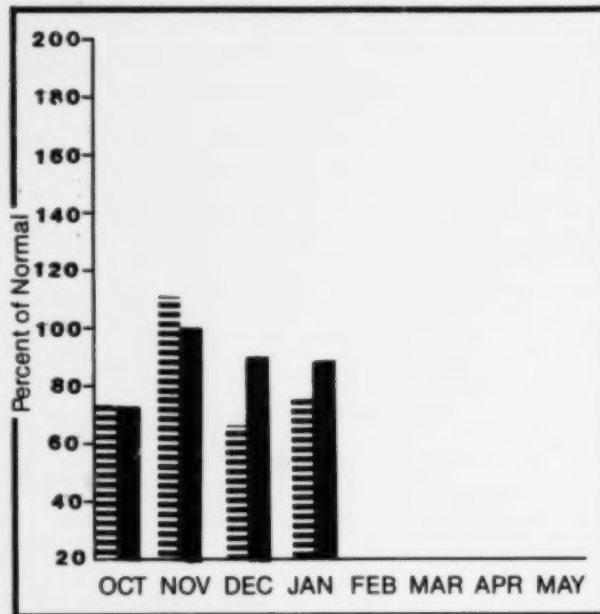
Streamflow forecasts for western Nevada are near or slightly below average. Forecast values for all northern Nevada rivers and creeks are much above average. Streamflow forecast values range from 5 percent below average for the Carson River at Carson City to 35 percent above average for the Franklin River near Arthur, Nevada.

TAHOE & TRUCKEE BASINS

Mountain snowpack* (inches)



Precipitation* (percent of normal)



*Based on selected stations

*Based on selected stations

Maximum ———
Minimum ———
Average - - - -
Current ———

Monthly precipitation

Year to date precipitation

WATER SUPPLY OUTLOOK:

Snowpack accumulations are near normal. This year's water content is approximately 10 percent below the values recorded last year. Reservoir storage is excellent with all storage facilities in the basin at or well above average. Storage in Boca, Prosser, and Stampede reservoirs is less than the amount stored last year at this date. Streamflow forecasts are average to slightly above average for Truckee River gaging stations.

For more information contact your local Soil Conservation Service office.

TAHOE & TRUCKEE BASINS

STREAMFLOW FORECASTS

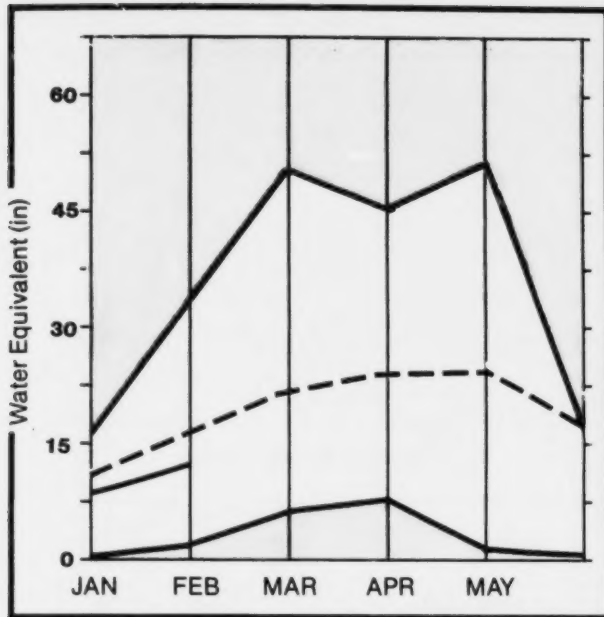
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
LAKE TAHOE RISE (assume gates closed)	APP-HIG	1.3	1.2	86	144	0				
TRUCKEE RIVER at Farad, Ca	APP-JUL	269.0	240.0	89	153	25				
LITTLE TRUCKEE RIVER above Boca, Ca	APP-JUL	92.5	79.0	85	152	18				
PYRAMID LAKE RISE	OCT-HIG	-0.6	-0.7	82	150	34				
STEAMBOAT CREEK at Steamboat, Hk	APP-JUL	5.2	4.2	80	175	10				
SAGEHEN CREEK, Ca	APP-JUL	6.5	5.5	84	154	15				
GALENA CREEK nr Steamboat, Hk	APP-JUL	4.4	3.7	84	136	23				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	XX USEABLE STORAGE THIS YEAR	LAST YEAR	AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE	
BOCA RESERVOIR	40.9	23.4	15.0	17.4	LAKE TAHOE RISE	12	106	79
LAKE TAHOE	744.6	469.7	521.0	401.5	TRUCKEE BASIN	11	125	84
PROSSER RESERVOIR	28.6	9.1	9.0	7.5	LITTLE TRUCKEE RIVER	1	123	74
STAMPEDE RESERVOIR	226.5	121.9	192.0	102.0	SAGE HEN CREEK	3	103	85
					GALENA CREEK	2	113	88
					STEAMBOAT DRAINAGE	1	108	80
					PYRAMID LAKE	23	117	83

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

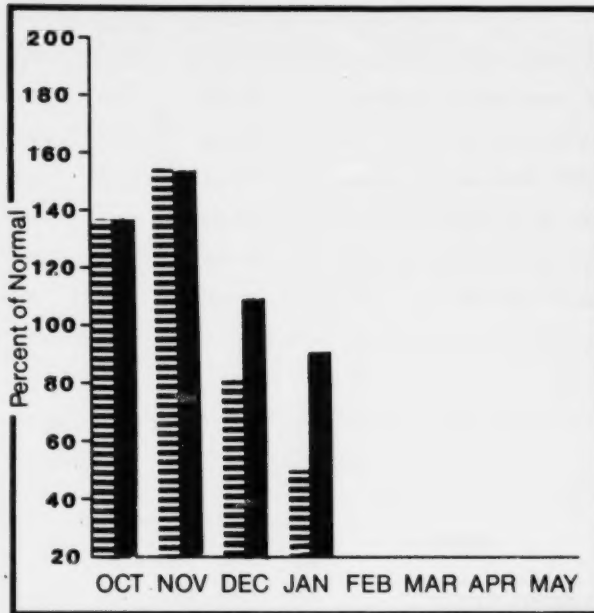
CARSON & WALKER BASINS

Mountain snowpack* (inches)



*Based on selected stations

Precipitation* (percent of normal)



*Based on selected stations

Maximum ——— Average - - - - -
Minimum ——— Current ———

Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

Water content values are average for January 1. Reservoir storage is 10-15 percent below average for the month. Bridgeport and Topaz reservoirs in the Walker drainage are 15 percent below average while Lahontan reservoir in the Carson drainage is 10 percent below average. Bridgeport and Lahontan reservoirs have less stored water this year than last while Topaz Lake has slightly more stored water. Streamflow forecasts are average to slightly below average.

For more information contact your local Soil Conservation Service office.

CARSON & WALKER BASINS

STREAMFLOW FORECASTS

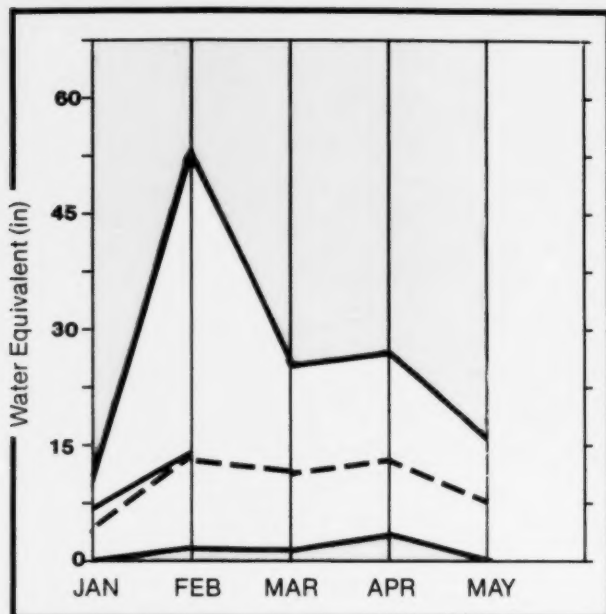
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
EF CARSON RIVER nr Gardnerville, Nv	APR-JUL	187.0	180.0	96	130	62	1753		200	Jun 15
WF CARSON RIVER at Woodfords, Ca	APR-JUL	53.0	49.0	92	124	58				
CARSON RIVER near Carson City, Nv	APR-JUL	182.0	170.0	93	151	36	1900			
CARSON RIVER near Ft. Churchill, Nv	APR-JUL	166.0	150.0	90	157	24	1665			
EAST WALKER RIVER nr Bridgeport, Ca	APR-JUL	66.0	63.0	95	155	36				
WEST WALKER RIVER near Coleville, Ca	APR-JUL	148.0	136.0	91	133	51	1414			
WALKER LAKE RISE	OCT-NOV	-0.5	-0.6	90	145	27				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS		
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE
BRIDGEPORT RESERVOIR	42.5	22.8	34.0	28.1	E. CARSON RIVER	7	104 80
LAHONTAN RESERVOIR	295.1	173.4	169.0	173.2	W. CARSON RIVER	5	100 77
TOPAZ RESERVOIR	59.4	27.2	20.0	33.9	CARSON Rv. at Carson City	5	103 81
					CARSON Rv. at Ft. Churchi	5	103 81
					E. WALKER Rv. nr Bridgepo	7	98 83
					W. WALKER Rv. nr Colevill	8	94 79
					WALKER LAKE RISE	10	98 83

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

HUMBOLDT BASIN

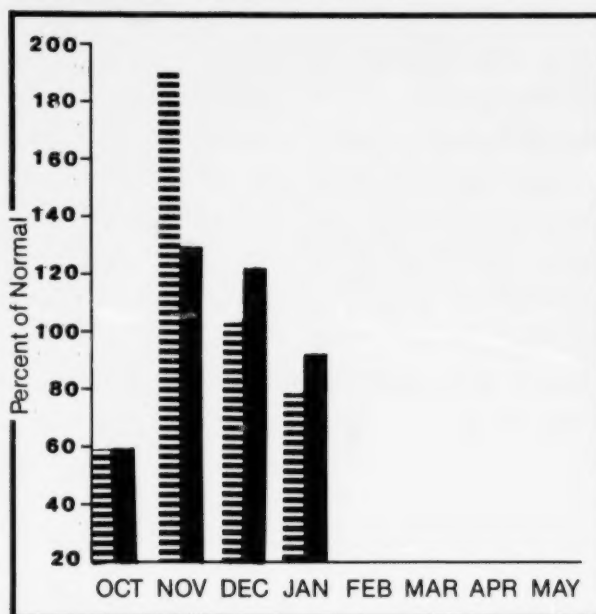
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - -
 Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

Snowpack accumulations are significantly above average for the fourth consecutive year. The January 1 snowpack is approximately 200 percent of average. Basin water year precipitation is above average by about 10 percent. Storage in Rye Patch Reservoir is approximately 30 percent above average for this date. Streamflow forecasts for the Humboldt River are 185 percent of average.

For more information contact your local Soil Conservation Service office.

HUMBOLDT BASIN

STREAMFLOW FORECASTS

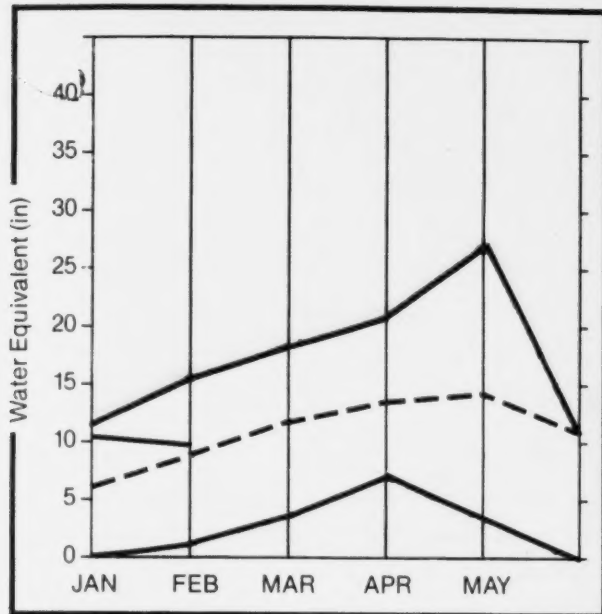
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
HUMBOLDT RIVER at Palisade	APR-JUL	230.0	245.0	106	193	20				
HUMBOLDT RIVER at Comus	APR-JUL	173.0	180.0	104	215	16				
S FORK HUMBOLDT RIVER at Dixie	APR-JUL	75.0	78.0	104	179	29				
NF HUMBOLDT RIVER at Devils Gate	APR-JUL	34.8	38.0	109	195	23				
MARY'S RIVER nr Deeth	APR-JUL	36.9	39.0	105	163	49				
MARTIN CREEK nr Paradise Nv	APR-JUL	15.8	16.7	105	158	51				
LAMOILLE CREEK nr Lamoille	APR-JUL	28.7	28.0	97	139	56				
REESE RIVER nr Ione Nv	APR-JUL	6.6	7.6	115	197	45				
L. HUMBOLDT RIVER nr Paradise Valley	APR-JUL	9.7	10.6	109	165	52				
ROCK CREEK nr Battle Mtn.	APR-JUL	16.0	17.0	106	181	31				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	THIS YEAR	LAST YEAR	AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
FYE PATCH RESERVOIR	194.3	128.2	127.0	94.0	LAMOILLE CREEK	1	117	85
					S. FORK HUMBOLDT	4	122	103
					MARY'S RIVER	4	86	92
					N. FORK HUMBOLDT	4	117	125
					HUMBOLDT Rv. at Palisades	8	115	109
					HUMBOLDT RIVER at Comus	8	115	109
					LITTLE HUMBOLDT RIVER	1	69	74
					MARTIN CREEK	2	70	81
					REESE RIVER	1	91	197
					ROCK CREEK	3	80	95

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

SNAKE & OUYHEE BASINS

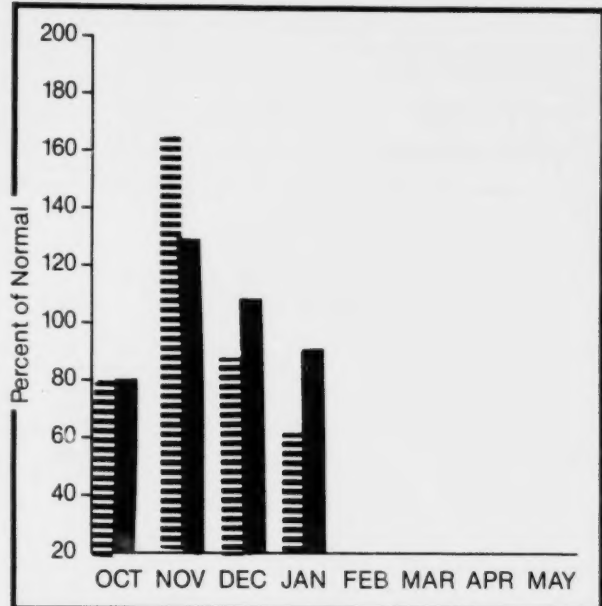
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - - -
 Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

The accumulated snowpack is well above average for January 1 with water content values as much as 65 percent above 20 year averages and 5 percent above last year's values. Water year precipitation is also above average. Wildhorse Reservoir is approximately 40 percent above average for this time of year, but is well below the amount stored last year. Streamflow forecasts for the three gaging stations within the basins are 110 percent of average.

For more information contact your local Soil Conservation Service office.

SNAKE & OUYHEE BASINS

STREAMFLOW FORECASTS

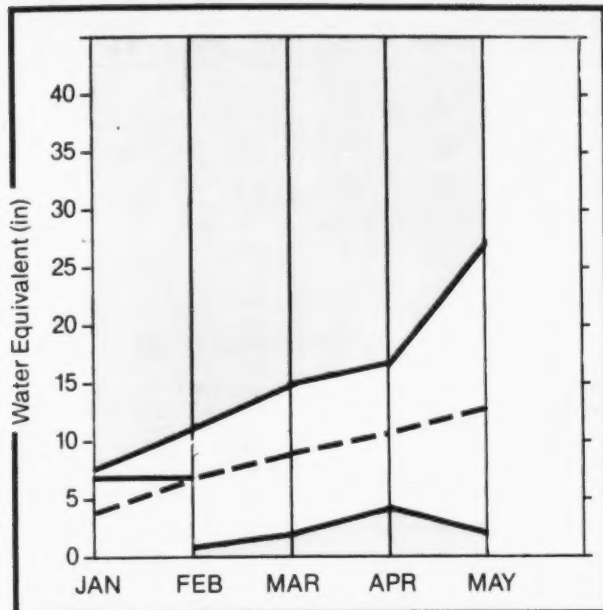
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
OYHEE RIVER nr Gold Creek	APR-JUL	22.0	24.0	109	173	45				
OYHEE RIVER nr Ouyhee	APR-JUL	85.4	86.0	100	144	37				
S FORK OYHEE nr White Rock, Nv	APR-JUL	83.0	85.0	102	165	40				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVE.			LAST YR.	AVERAGE
WILDHORSE RESERVOIR	71.5	39.4	40.0	27.7	OYHEE RIVER nr Ouyhee	7	99	112
					OYHEE Rv. nr Gold Creek	2	105	123
					S. FORK OYHEE RIVER	7	99	112
					SALMON FALLS CREEK	4	88	92

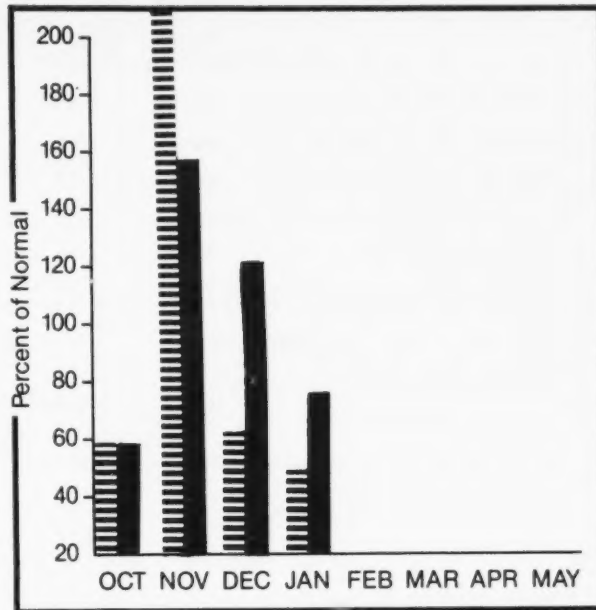
*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

EASTERN NEVADA

Mountain snowpack* (inches)



Precipitation* (percent of normal)



*Based on selected stations

*Based on selected stations

Maximum ——— Average - - - -
Minimum ——— Current ———

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Snowpack water content accumulation is well above average for January 1. The current water content is approximately equal to the amounts measured last year at this time. Streamflow forecasts for Steptoe Creek and Franklin River are above average by 20 percent and 35 percent respectively.

For more information contact your local Soil Conservation Service office.

EASTERN NEVADA

STREAMFLOW FORECASTS

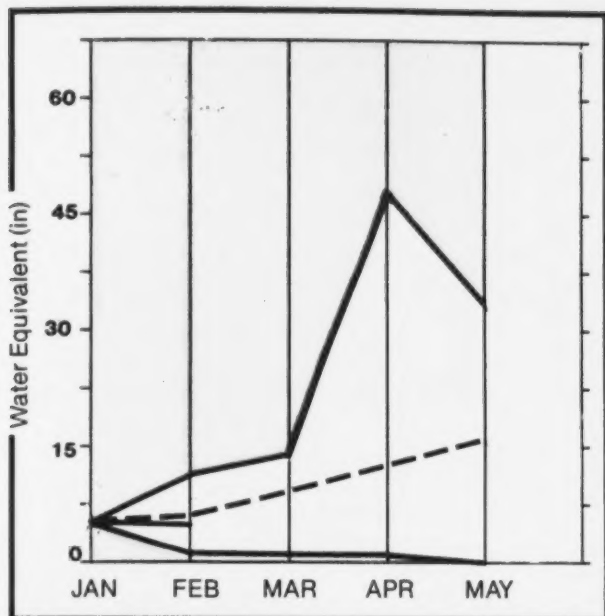
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
STEPTOE CREEK nr Ely	APR-JUL	2.0	2.4	119	200	30				
KINGSTON CREEK nr Austin, Nv	APR-JUL	3.3	3.6	109	182	30				
FRANKLIN RIVER nr Arthur	APR-JUL	5.9	6.8	115	184	34				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE	
					FRANKLIN RIVER	2	97	88
					KINGSTON CREEK	1	91	197
					EASTERN NEVADA	2	93	121
					STEPTOE VALLEY	1	111	110

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

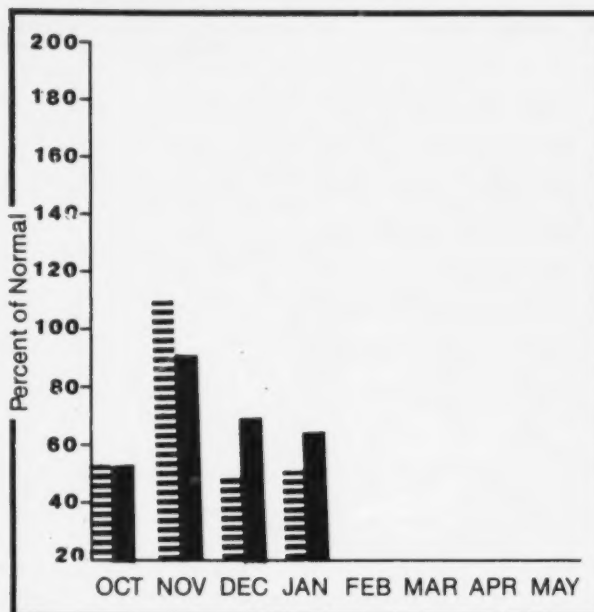
NORTHERN GREAT BASIN

Mountain snowpack* (inches)



*Based on selected stations

Precipitation* (percent of normal)



*Based on selected stations

Maximum ——— Average - - - - -
Minimum ——— Current ———

Monthly precipitation

Year to date precipitation

WATER SUPPLY OUTLOOK:

Snowpack accumulations in this basin are variable. Water content values in the western and southern portions are below average while water content in the eastern and northern portions is above average. All water content values are below those reported last year. Streamflow forecasts for the Quinn River, East Fork Quinn River, and McDermitt Creek are approximately 15 percent above average. Streamflow forecast values for Deep Creek, Eagle Creek, and Mill Creek are approximately 10 percent below average.

For more information contact your local Soil Conservation Service office.

NORTHERN GREAT BASIN

STREAMFLOW FORECASTS

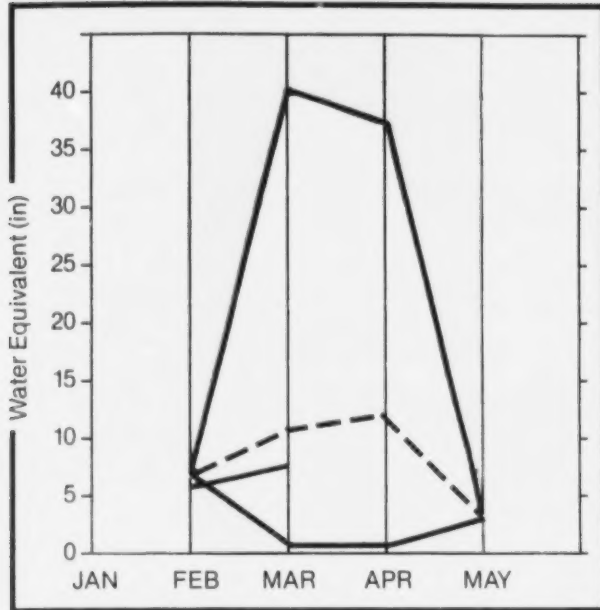
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
SIDWELL CREEK nr Fort Bidwell	APR-JUL	12.0	10.6	88	150	25				
DEEP CREEK nr Cedarville, Ca	APR-JUL	3.6	3.1	86	139	28				
EAGLE CREEK nr Eagleville, Ca	APR-JUL	4.3	3.9	90	163	23				
MILL CREEK nr Cedarville, Ca	APR-JUL	4.1	3.6	87	146	24				
QUINN RIVER nr McDermitt, Nv	APR-JUL	16.0	15.7	98	156	44				
E. FORK QUINN RIVER nr McDermitt	APR-JUL	13.0	13.1	100	154	46				
MCDERMITT CREEK nr McDermitt	APR-JUL	12.0	12.6	105	158	50				

RESERVOIR STORAGE		(1000AF)	WATERSHED SNOWPACK ANALYSIS				
RESERVOIR	USEABLE	** USEABLE STORAGE **		WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF	
	CAPACITY	THIS	LAST			LAST YR.	AVERAGE
		YEAR	YEAR	AVE.			
					BIDWELL	4	67 75
					MILL CREEK	1	82 103
					DEEP CREEK	1	82 103
					EAGLE CREEK	1	82 103
					QUINN RIVER	2	78 78
					E. FORK QUINN	2	78 78
					MCDERMITT CREEK	2	78 78

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

SOUTHERN NEVADA

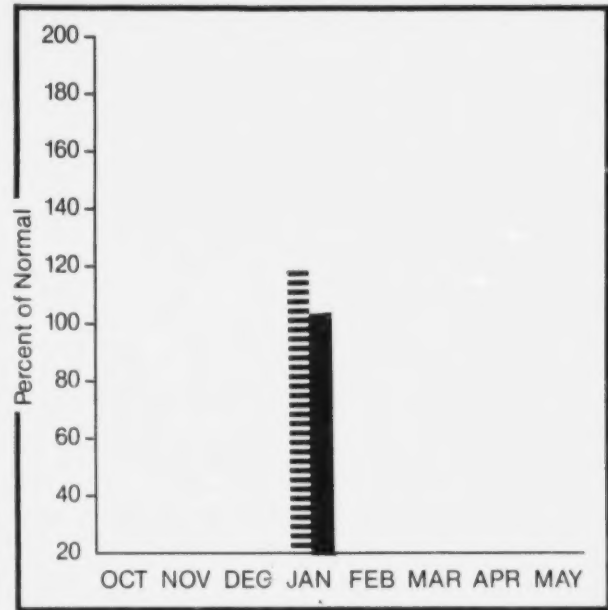
Mountain snowpack* (inches)



*Based on selected stations

Maximum Average
 Minimum Current

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Snowpack accumulations in the mountains supplying water for the Virgin River are approximately 15 percent above average for January 1. Storage in Lake Mohave is about 10 percent below average while storage in Lake Mead is about 30 percent above average. Both storage values are less than those recorded last year at this time. The streamflow forecast for the Virgin River near Hurricane, Utah is 85 percent above the 20 year average.

For more information contact your local Soil Conservation Service office.

SOUTHERN NEVADA

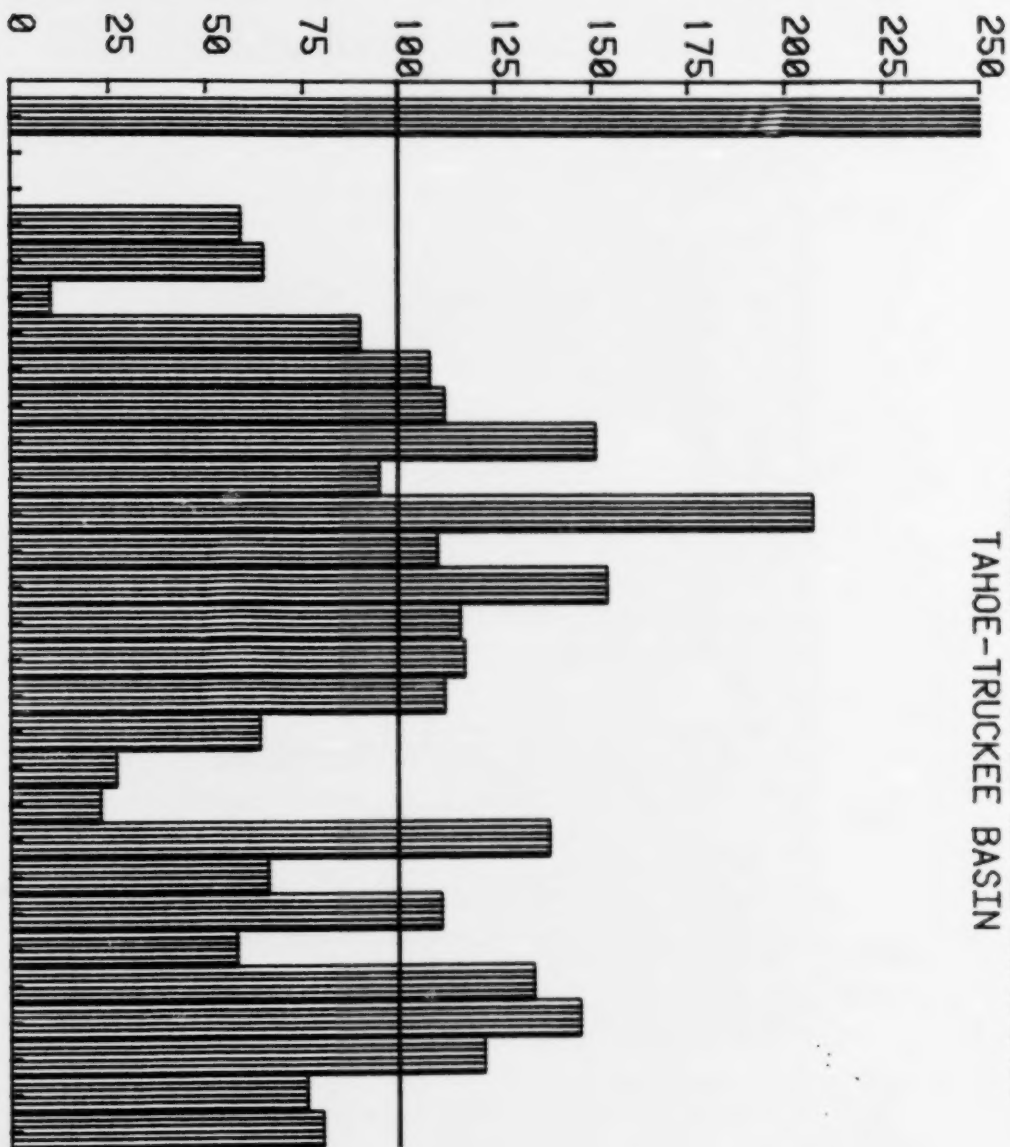
STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
VIRGIN RIVER near Hurricane, UT	APR-JUL	62.0	50.0	80	127	35				
LAKE POWELL inflow	APR-JUL	7462.0	9500.0	127	170	89				

RESERVOIR STORAGE				(1000AF)	WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	THIS YEAR	LAST YEAR	AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE	
LAKE MOHAVE	1810.0	1647.0	1715.2	1671.0	VIRGIN Rv. at Littlefield	4	58	72
LAKE MEAD	26159.0	23147.0	23938.0	18312.0	VIRGIN Rv. at Hurricane	4	58	72

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

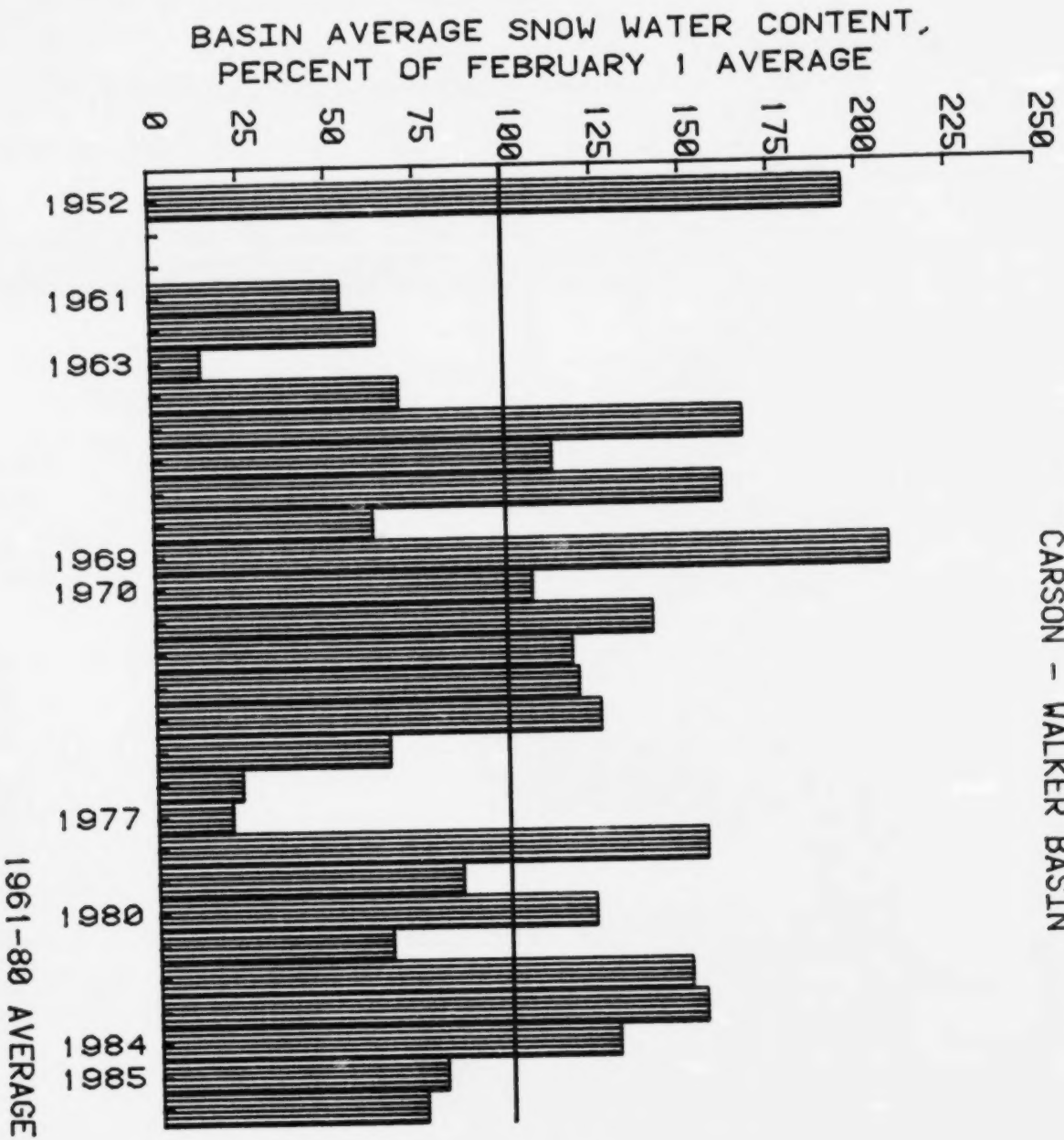
BASIN AVERAGE SNOW WATER CONTENT,
PERCENT OF FEBRUARY 1 AVERAGE



FEBRUARY 1 SNOW WATER CONTENTS
TAHOE-TRUCKEE BASIN

1961-80 AVERAGE

FEBRUARY 1 SNOW WATER CONTENTS
CARSON - WALKER BASIN



The Following Organizations Cooperate With The Soil Conservation Service In Snow Survey Work

STATE

California Cooperative Snow Surveys
California Department of Parks and Recreation
California Department of Water Resources
Colorado River Commission of Nevada
Idaho Cooperative Snow Surveys
Nevada Association of Conservation Districts
Nevada Department of Conservation & Natural Resources
 Division of Water Resources
 Nevada State Forester
 Division of Conservation Districts
Oregon Cooperative Snow Surveys
University of Nevada, Desert Research Institute
Utah Cooperative Snow Surveys

FEDERAL

Bureau of Reclamation
Forest Service
Geological Survey
Soil Conservation Service
U.S. District Court - Federal Water Master
NOAA, National Weather Service

PRIVATE

Nevada Irrigation District
Owyhee Project North Board of Control
Owyhee Project South Board of Control
Pacific Gas and Electric Company
Pershing County Water Conservation District
Sierra Pacific Power Company
Truckee - Carson Irrigation District
Walker River Irrigation District
Washoe County Water Conservancy District

Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
1201 TERMINAL WAY, SECOND FLOOR
RENO, NEVADA 89502

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**Nevada
Water Supply Outlook**

and

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Cooperative Snow Surveys



SOIL CONSERVATION SERVICE

986/3



United States
Department of
Agriculture

Soil
Conservation
Service

Reno
Nevada



Nevada Water Supply Outlook

March 1, 1986



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Foreword

How Forecasts Are Made

Most of the annual streamflow in the Western United States originates as snowfall. This snowfall accumulates high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are viewed in conjunction with snowpack data to prepare runoff forecasts. This report presents a comprehensive picture of water supply outlook conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data and narratives describing current conditions.

Streamflow forecasts are cooperatively generated by Soil Conservation Service and National Weather Service hydrologists. Forecasts become more accurate as more data affecting runoff becomes known. For this reason, forecasts are issued that reflect three future precipitation conditions — Below Normal, Average, and Above Normal. These forecasts are termed reasonable minimum, most probable, and reasonable maximum. Actual streamflow can be expected to fall between the lower and upper forecast values eight out of ten years.

Snowpack data are obtained by using a combination of manual and automated measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation, temperature, and other parameters are monitored on a daily basis and transmitted via radio telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

For More Information

Copies of Monthly Water Supply Outlook Reports and other reports may be obtained from the states listed below. Because of the limited space, snow survey measurements are not published in monthly reports. An annual snow survey data summary is published by the Soil Conservation Service for each of the western states. Historical snow survey data may be obtained at those same offices.

STATE	ADDRESS
Alaska	201 East 9th Ave., Suite 300, Anchorage, AK 99501-3687
Arizona	201 East Indianola, Suite 200, Phoenix, AZ 85012
Colorado (New Mexico)	2490 West 26th Ave., Denver, CO 80211
Idaho	304 North 8th Street, Room 345, Boise, ID 83702
Montana	10 East Babcock, Room 443, Federal Building, Bozeman, MT 59715
Nevada	1201 Terminal Way, Second Floor, Reno, NV 89502
Oregon	1220 Southwest 3rd Ave., 16th Floor, Portland, OR 97204
Utah	4402 Federal Building, 125 South State Street, Salt Lake City, UT 84147
Washington	360 U.S. Court House, Spokane, WA 99201
Wyoming	Federal Building, 100 East "B" Street, Casper, WY 82602

In addition to state reports, a Water Supply Outlook for the Western United States is published by the Soil Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 547, Portland, OR 97209.

Published by other agencies:

Water Supply Outlook Reports prepared by other agencies include: California — Snow Survey Branch, California Department of Water Resources, P.O. Box 388, Sacramento, CA 95802; British Columbia — The Ministry of Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia, V8V 1X5; Yukon Territory — Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory, Y1A 3V1; Alberta, Saskatchewan, and N.W.T. — The Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta, T3C 1A6.

Nevada Water Supply Outlook

and

Federal - State - Private Cooperative Snow Surveys

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Soil Conservation Service
Reno, Nevada 89502

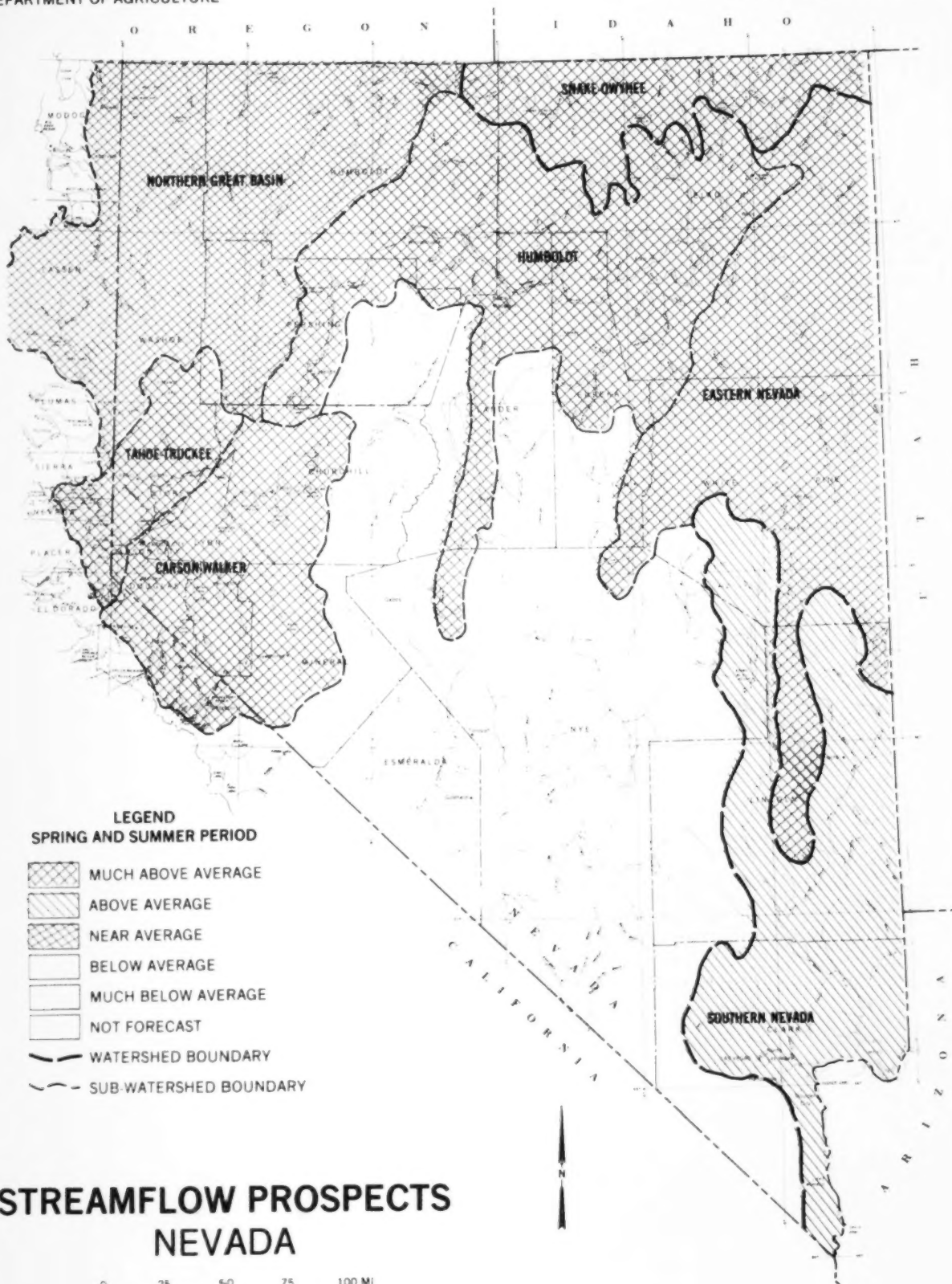
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Reno, Nevada 89502

In Cooperation With

Roland D. Westergard
Director
Department of Conservation &
Natural Resources
Carson City, Nevada 89701

Programs and assistance of the United States Department of Agriculture are available without regard to race, creed, color, sex, age, or national origin.



GENERAL OUTLOOK

SUMMARY:

SNOWPACK WATER CONTENT VALUES INCREASED DRAMATICALLY THROUGHTOUT NEVADA DURING FEBRUARY. THE LARGEST INCREASES WERE RECORDED IN THE SIERRA NEVADA MOUNTAIN RANGE WITH BASIN WATER CONTENT INCREASING BY AS MUCH AS 60 PERCENT. INCREASES BETWEEN 25 AND 30 PERCENT WERE RECORDED IN THE HUMBOLDT, SNAKE, AND OWYHEE BASINS. PRECIPITATION DURING FEBRUARY WAS SIGNIFICANTLY ABOVE AVERAGE. MONTHLY PRECIPITATION RANGED FROM 100 PERCENT IN SOUTHERN NEVADA TO 430 PERCENT IN THE NORTHERN GREAT BASIN. THE SERIES OF WARM STORMS THE MIDDLE OF THE MONTH CAUSED FLOODING AND DEBRIS SLIDES AND CLOSED MAJOR HIGHWAYS BETWEEN NEVADA AND CALIFORNIA. RESERVOIR STORAGE IS ABOVE AVERAGE AS THE FACILITIES WERE USED TO LESSEN DOWNSTREAM FLOODING. RELEASES ARE BEING MADE FROM MOST RESERVOIRS IN ANTICIPATION OF ABOVE AVERAGE RUN-OFF. STREAMFLOW FORECASTS HAVE BEEN INCREASED TO REFLECT INCREASED BASIN SNOWPACK .

SNOWPACK:

Major storms during February increased Sierra Nevada Mountain Range snowpack by about 60 percent. Basin snowpack conditions in western Nevada are 140-150 percent of average. Increases in the rest of Nevada ranged from 25-30 percent. Extreme avalanche danger existed through-out the state after the storm and an avalanche destroyed the Hole-In-Mountain SNOTEL site in eastern Nevada. .

PRECIPITATION:

Precipitation values were much above average for most basins. The largest monthly basin value was the Northern Great basin at 430 percent of average. The Tahoe-Truckee, Snake-Owyhee, and Carson-Walker basins were in excess of 200 percent of average for the month. Southern Nevada reported average monthly precipitation. Water year precipitation for all basins, with the exception of Southern Nevada, is 120 to 145 percent of average. Southern Nevada is 105 percent of average for the water year. .

RESERVOIRS:

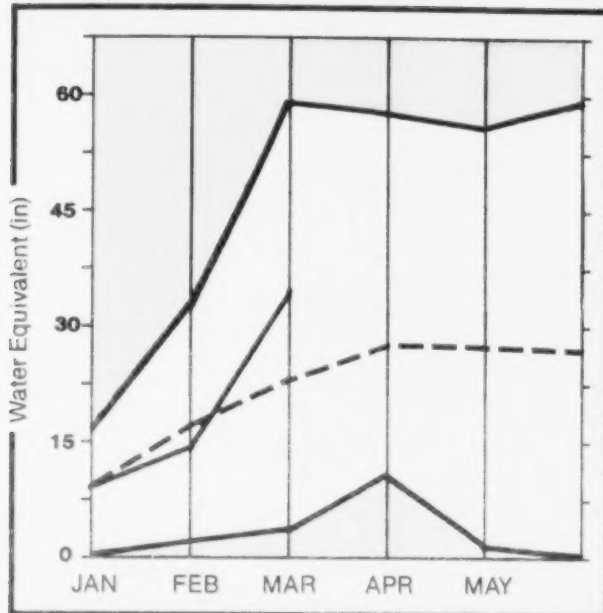
Reservoir storage statewide is above average for March 1. Runoff during the major February storm filled many reservoirs. Releases are being made currently to provide storage capacity for spring runoff. Tahoe-Truckee basin reservoirs are 160 percent of average while Carson-Walker basin storage is 130 percent of average. Rye Patch Reservoir is 135 percent of average and Wildhorse Reservoir is 180 percent of average. Storage in the seven major reservoirs is 150 percent of average. .

STREAMFLOW:

All streamflow forecasts have been increased since February 1. Truckee River at Farad, California is forecasted to flow 400,000 acre feet or 150 percent of average. The April through July forecast for Carson River near Carson City is 330,000 acre feet or 180 percent of twenty year averages. Forecast values within the Humboldt basin are between 140 and 185 percent of average. Humboldt River at Palisade forecast is 400,000 acre feet an increase of 155,000 acre feet since February 1. .

TAHOE & TRUCKEE BASINS

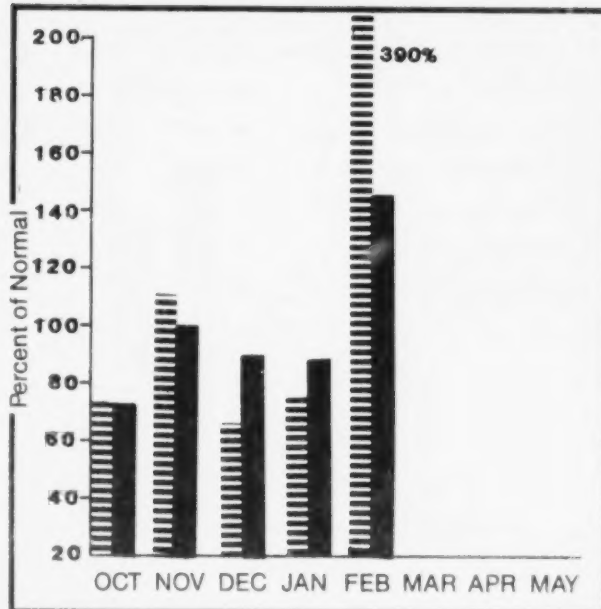
Mountain snowpack* (inches)



*Based on selected stations

Maximum ———
 Minimum ———
 Average - - - -
 Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation
 Year to date precipitation

WATER SUPPLY OUTLOOK:

The basin water supply outlook is excellent. Snowpack accumulations are 150 percent of average; a 60 percent increase since February 1. Reservoir storage is well above average because all available storage was used to avert further flooding along the Truckee River. All streamflow forecasts for the basin have been increased. Monthly precipitation was 390 percent of average. Truckee River at Farad forecast is 400,000 acre feet or 150 percent of average. .

For more information contact your local Soil Conservation Service office.

TAHOE & TRUCKEE BASINS

STREAMFLOW FORECASTS

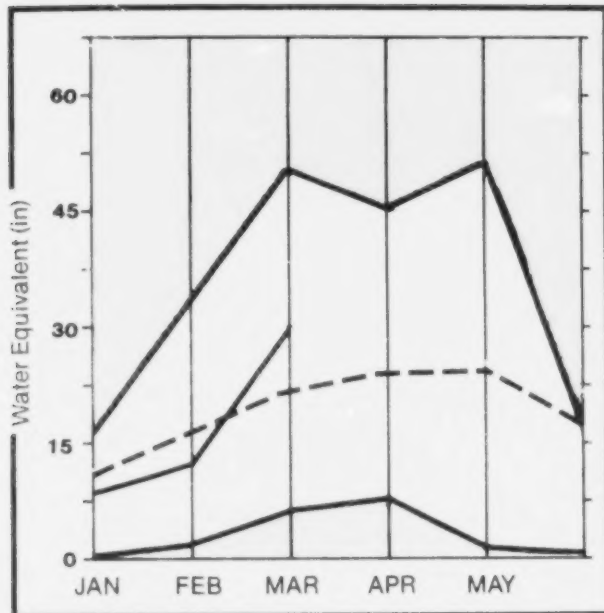
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
LAKE TAHOE RISE (assumes gates closed)	APR-MIG	1.3	2.2	150	216	144				
TRUCKEE RIVER at Farad, Ca	APR-JUL	269.0	400.0	148	194	104				
LITTLE TRUCKEE RIVER above Boca, Ca	APR-JUL	92.5	133.0	143	194	94				
PYRAMID LAKE RISE (LOW 12/1/85)	LOW-MIG	1.17	9.0	218	239	196				
STEAMBOAT CREEK at Steamboat, Nv	APR-JUL	5.2	8.0	153	192	115				
SAGEHEN CREEK, Ca	APR-JUL	6.5	10.4	160	215	100				
GALENA CREEK nr Steamboat, Nv	APR-JUL	4.4	7.2	163	205	114				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	% OF AVERAGE
Boca Reservoir	40.9	31.5	14.0	18.2	LAKE TAHOE RISE	14	194	152
LAKE TAHOE	744.6	644.6	520.0	416.3	TRUCKEE BASIN	15	190	146
PROSSER RESERVOIR	28.6	9.7	9.0	7.3	LITTLE TRUCKEE RIVER	3	195	144
STAMPEDE RESERVOIR	226.5	150.6	193.0	104.1	SAGE HEN CREEK	5	179	141
					GALENA CREEK	3	200	164
					STEAMBOAT DRAINAGE	2	205	156
					PYRAMID LAKE	29	192	149

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

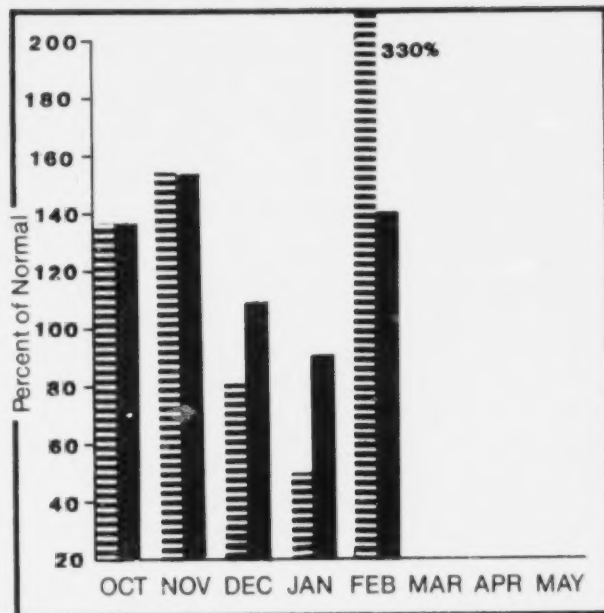
CARSON & WALKER BASINS

Mountain snowpack* (inches)



*Based on selected stations

Precipitation* (percent of normal)



*Based on selected stations

Maximum

—

Average

Minimum

—

Current

—

Monthly precipitation



Year to date precipitation



WATER SUPPLY OUTLOOK:

There was dramatic improvement in snowpack conditions since February 1. The basin snowpack is 150 percent of average, up from 80 percent a month ago. Large increases in reservoir storage were recorded as the result of significant storm run-off. Water is being released from Lahontan Reservoir in order to provide adequate capacity for spring run-off. All streamflow forecasts have been increased. February precipitation was 330 percent of average.

For more information contact your local Soil Conservation Service office.

CARSON & WALKER BASINS

STREAMFLOW FORECASTS

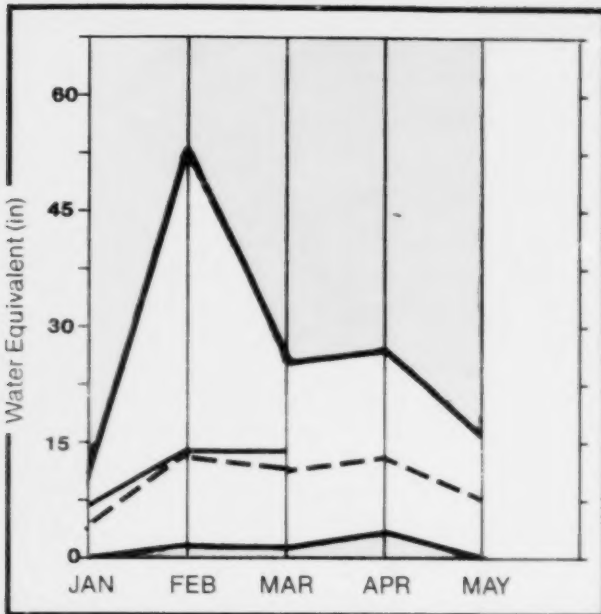
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
EF CARSON RIVER nr Gardnerville, Nv	APR-JUL	187.0	285.0	152	183	121	2984		200	JUL 10
WF CARSON RIVER at Woodfords, Ca	APR-JUL	53.0	84.0	150	191	124				
CARSON RIVER near Carson City, Nv	APR-JUL	182.0	300.0	164	209	121	3566			
CARSON RIVER near Ft. Churchill, Nv	APR-JUL	166.0	280.0	168	217	120	3350			
EAST WALKER RIVER nr Bridgeport, Ca	APR-AUG	66.0	105.0	159	211	100				
WEST WALKER RIVER near Coleville, Ca	APR-JUL	148.0	230.0	155	184	124	2542			
WALKER LAKE RISE (LOW 1/6/86)	LOW-HIGH	-0.03	6.6	290	340	239				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS		
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE
BRIDGEPORT RESERVOIR	42.5	34.6	39.0	31.3	E. CARSON RIVER	7	213 155
LAHONTAN RESERVOIR	295.1	292.7	203.0	211.8	W. CARSON RIVER	4	190 149
TOPAZ RESERVOIR	59.4	48.9	28.0	39.6	CARSON Rv. at Carson City	6	220 159
					CARSON Rv. at Ft. Churchi	6	220 159
					E. WALKER Rv. nr Bridgepo	6	232 163
					W. WALKER Rv. nr Colevill	8	234 164
					WALKER LAKE RISE	9	235 166

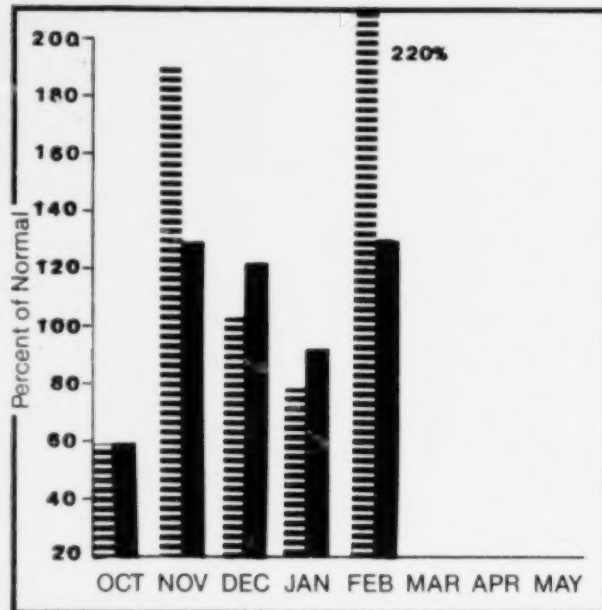
*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

HUMBOLDT BASIN

Mountain snowpack* (inches)



Precipitation* (percent of normal)



*Based on selected stations

*Based on selected stations

Maximum Average Minimum Current

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Basin snowpack values are 140 percent of average or a 30 percent increase since February 1. Large snow accumulations during the month triggered several avalanches, one which came very close to the Lamance Creek SNOTEL site. February precipitation was 220 percent of average and brings the water year total to 130 percent of average. The Humboldt River forecast is 380,000 acre feet or 165 percent of average.

For more information contact your local Soil Conservation Service office.

HUMBOLDT BASIN

STREAMFLOW FORECASTS

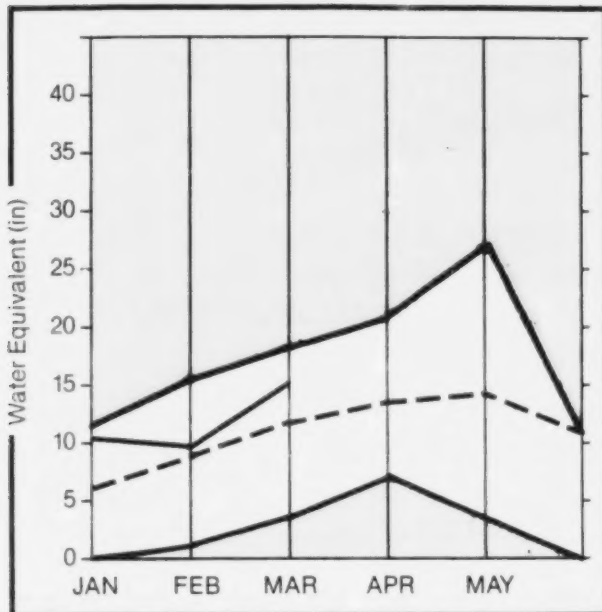
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
HUMBOLDT RIVER at Palisade	APR-JUL	230.0	380.0	165	244	86				
HUMBOLDT RIVER at Coeus	APR-JUL	173.0	295.0	170	272	69				
S FORK HUMBOLDT RIVER at Dixie	APR-JUL	75.0	116.0	154	221	89				
NF HUMBOLDT RIVER at Devils Gate	APR-JUL	34.8	56.0	160	233	89				
MARY'S RIVER nr Deeth	APR-JUL	36.9	55.0	149	195	103				
MARTIN CREEK nr Paradise Nv	APR-JUL	15.8	25.0	158	196	120				
LAHOILLE CREEK nr Lamolle	APR-JUL	28.7	41.0	142	181	105				
REESE RIVER nr Ione Nv	APR-JUL	6.6	9.4	142	212	76				
L. HUMBOLDT RIVER nr Paradise Valley	APR-JUL	9.7	17.9	184	227	144				
ROCK CREEK nr Battle Mtn.	APR-JUL	16.0	27.0	168	238	100				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
RYE PATCH RESERVOIR	194.3	140.9	134.0	104.1	LAHOILLE CREEK	3	177	142
					S. FORK HUMBOLDT	11	124	124
					MARY'S RIVER	5	121	119
					N. FORK HUMBOLDT	9	130	146
					HUMBOLDT Rv. at Palisades	12	141	145
					HUMBOLDT RIVER at Coeus	12	141	145
					LITTLE HUMBOLDT RIVER	4	144	189
					MARTIN CREEK	5	143	181
					REESE RIVER	4	93	123
					ROCK CREEK	3	124	146

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

SNAKE & OUYHEE BASINS

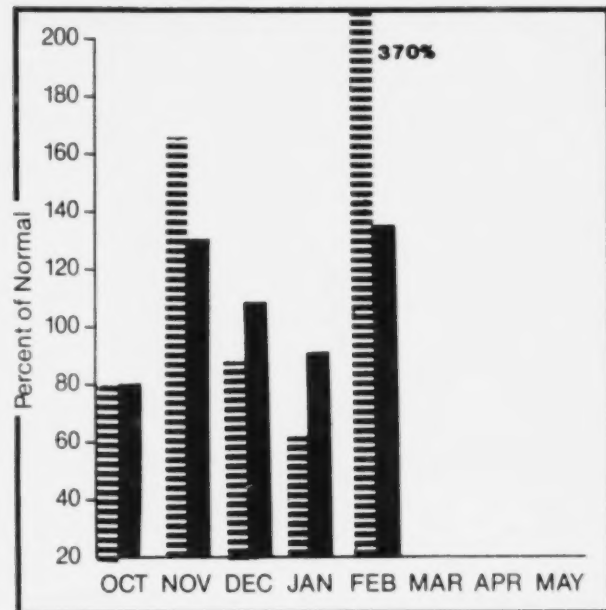
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - -
 Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

Combined basin snowpack accumulation values increased 25 percent during February with the basin currently 135 percent of average. The Owyhee basin is 150 percent of average while the Snake basin is 120 percent of average. Precipitation during February was 370 percent of average. Water year precipitation is 125 percent of average. Wildhorse Reservoir storage is 180 percent of average which is 10 percent below last year's value.

For more information contact your local Soil Conservation Service office.

STREAMFLOW FORECASTS

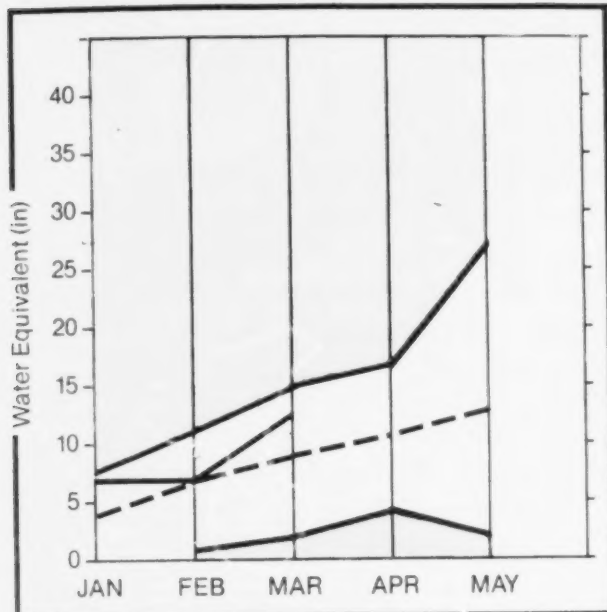
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
OWYHEE RIVER nr Gold Creek	APR-JUL	22.0	32.0	145	200	91				
OWYHEE RIVER nr Owyhee	APR-JUL	85.4	110.0	128	181	76				
S FORK OWYHEE nr White Rock, Nev	APR-JUL	83.0	112.0	134	188	82				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	THIS YEAR	USEABLE STORAGE LAST YEAR	THIS YEAR AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	% OF AVERAGE
WILDHORSE RESERVOIR	71.5	52.7	60.0	29.4	OWYHEE RIVER nr Owyhee	7	139	146
					OWYHEE Rv. nr Cold Creek	4	152	163
					S. FORK OWYHEE RIVER	7	139	146
					SALMON FALLS CREEK	4	110	117

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

EASTERN NEVADA

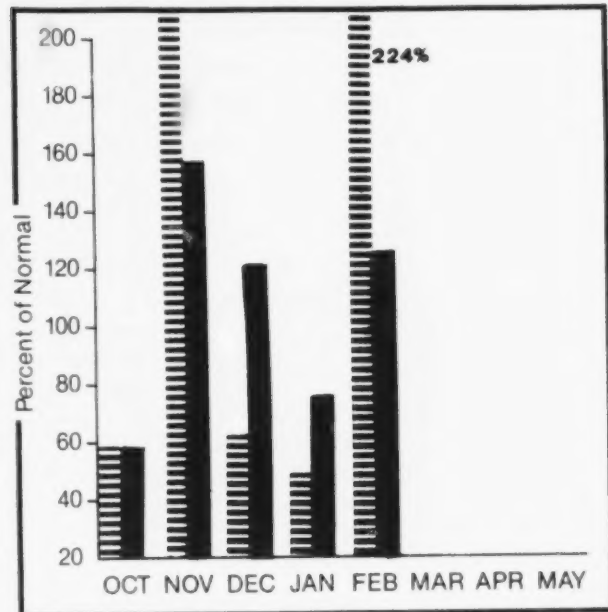
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - - -
Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Snowpack accumulations increased 35 percent during February to 135 percent of average. Snow course measurements below 7500 feet elevation recorded below average values while courses above this elevation were above average. Precipitation during the month was 225 percent of average with the water year total 125 percent of average. The April-July forecast for Steptoe Creek near Ely is 3,000 acre feet which is 150 percent of average.

For more information contact your local Soil Conservation Service office.

EASTERN NEVADA

STREAMFLOW FORECASTS

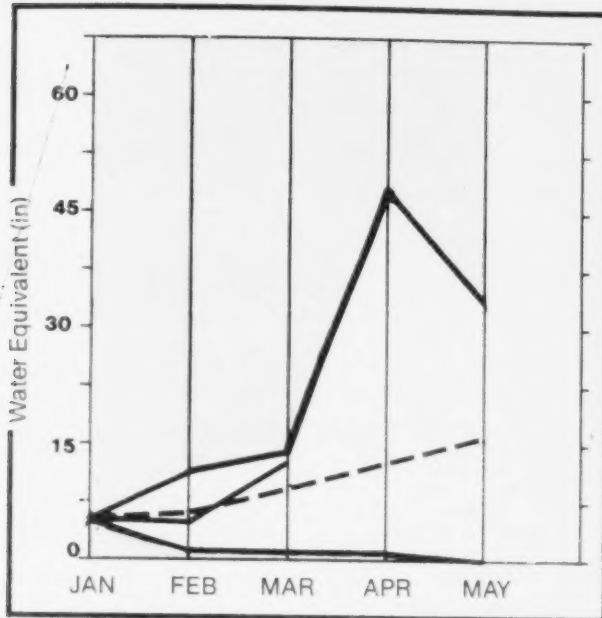
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
STEPTOE CREEK nr Ely	APR-JUL	2.0	3.0	150	200	100				
KINGSTON CREEK nr Austin, Nv	APR-JUL	3.3	4.5	136	212	61				
FRANKLIN RIVER nr Arthur	APR-JUL	5.9	7.0	110	106	51				

RESERVOIR STORAGE (1000AF)				WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	% OF AVERAGE
				FRANKLIN RIVER	3	161	153
				KINGSTON CREEK	4	93	123
				EASTERN NEVADA	5	82	117
				STEPTOE VALLEY	2	105	120

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

NORTHERN GREAT BASIN

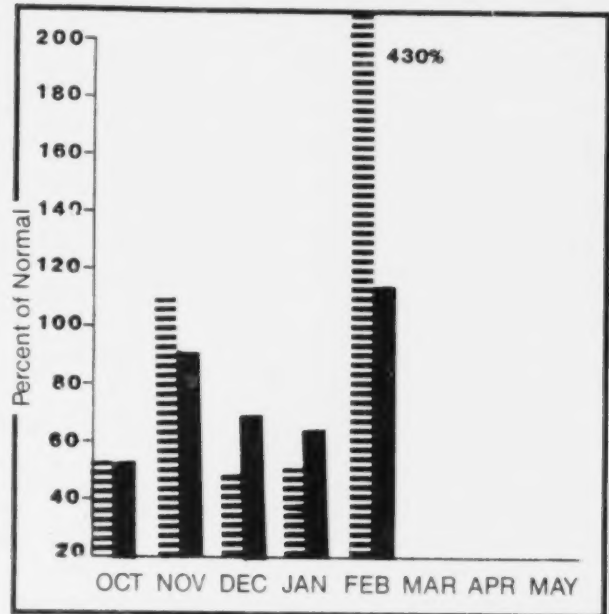
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - - -
 Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation
 Year to date precipitation

WATER SUPPLY OUTLOOK:

Snowpack accumulations have increased tremendously since February 1. The March 1 snowpack was 150-175 percent of average. Precipitation during February was 430 percent of average and is 120 percent of average for the water year. Streamflow forecasts have been increased as a result and the prospect for summer water supply is good. Bidwell Creek near Fort Bidwell forecast is 12,000 acre feet which is 115 percent of average. Quinn River near McDermitt will flow 16,000 acre during April-Jul or 90 percent. .

For more information contact your local Soil Conservation Service office.

NORTHERN GREAT BASIN

STREAMFLOW FORECASTS

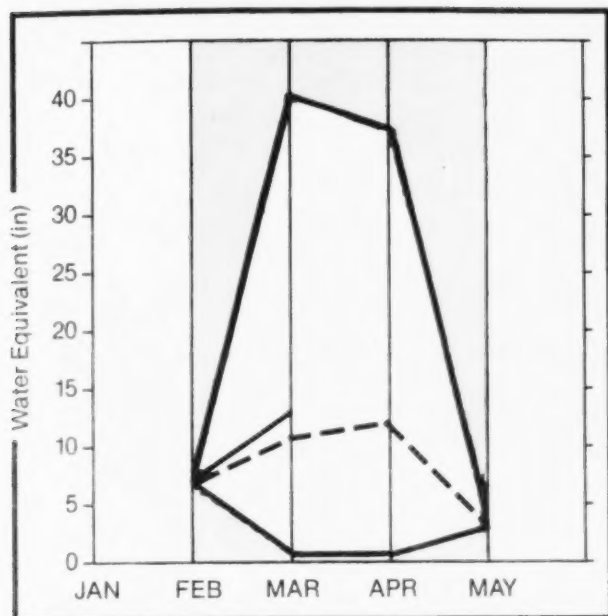
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
BIDWELL CREEK nr Fort Bidwell	APR-JUL	12.0	14.1	117	167	67				
DEEP CREEK nr Cedarville, Ca	APR-JUL	3.6	4.1	113	167	54				
EAGLE CREEK nr Eagleville, Ca	APR-JUL	4.3	5.0	116	163	70				
MILL CREEK nr Cedarville, Ca	APR-JUL	4.1	4.5	109	171	49				
QUINN RIVER nr McDermitt, Nv	APR-JUL	16.0	14.5	90	131	50				
E. FORK QUINN RIVER nr McDermitt	APR-JUL	13.0	12.7	97	138	54				
MCDERMITT CREEK nr McDermitt	APR-JUL	12.0	10.8	90	133	50				

RESERVOIR STORAGE (1000AF)				WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	THIS YEAR	LAST YEAR	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE	
	USEABLE STORAGE						
				BIDWELL	1	111	67
				QUINN RIVER	3	185	188
				E. FORK QUINN	3	185	188
				MCDERMITT CREEK	3	185	188

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

SOUTHERN NEVADA

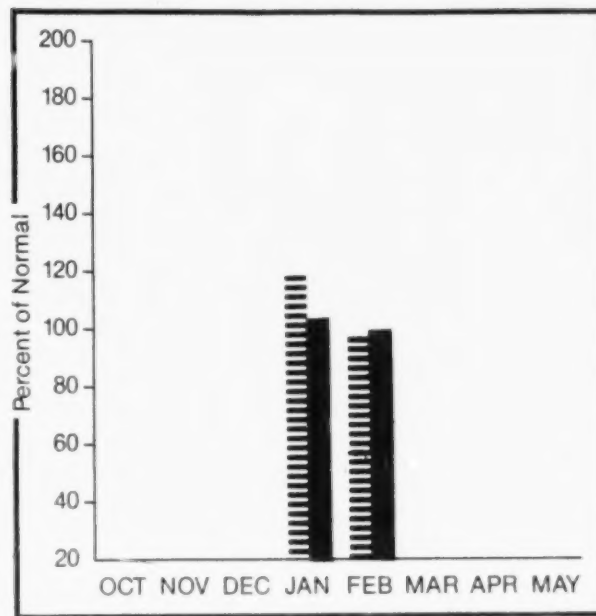
Mountain snowpack* (inches)



*Based on selected stations

Maximum ———
Minimum ———
Average - - - -
Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation
Year to date precipitation

WATER SUPPLY OUTLOOK:

Snow courses in the Spring Mountains west of Las Vegas are 120 percent of March 1 averages. All course values are less than recorded last year. Precipitation during February was average and the water year total is slightly above average. Reservoir storage in the Lower Colorado basin is 150 percent of average. Lake Mead is 130 percent of average while Lake Mohave is 95 percent of average.

For more information contact your local Soil Conservation Service office.

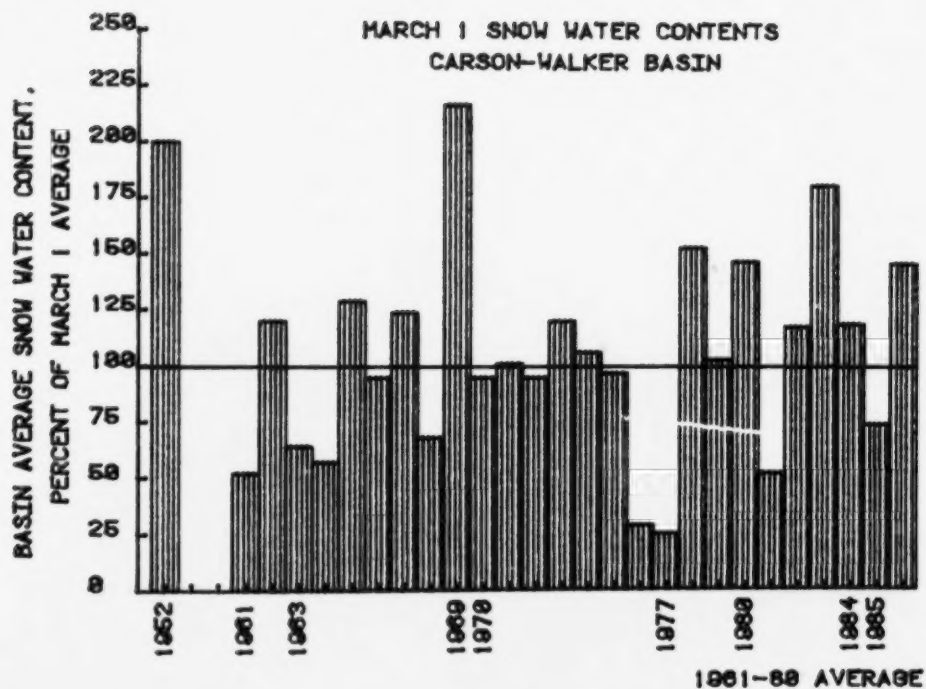
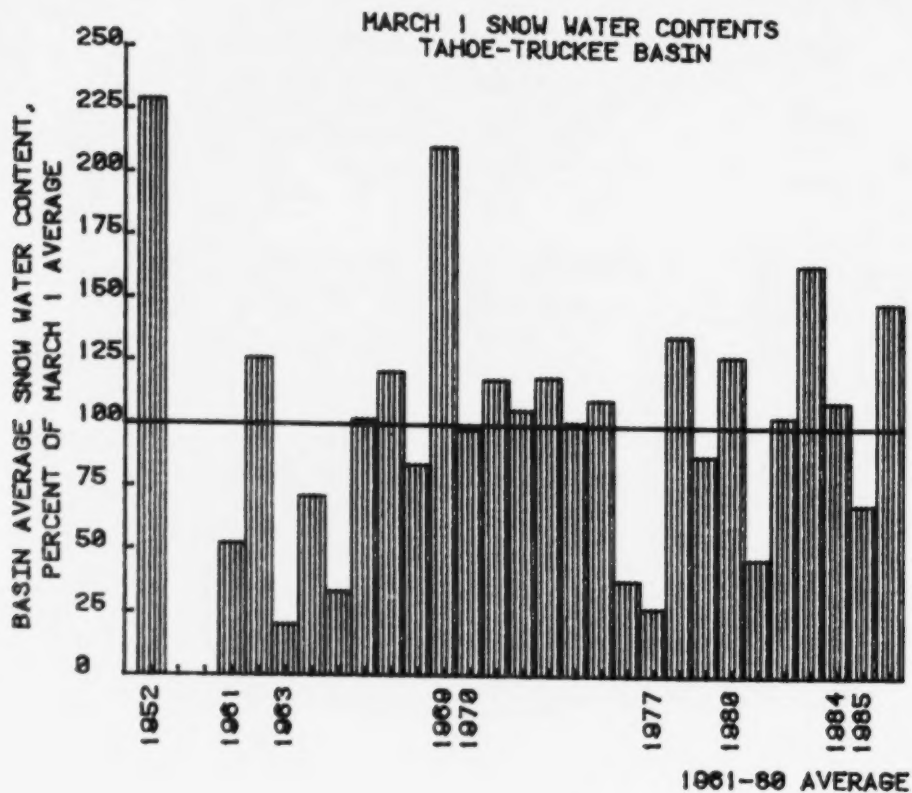
SOUTHERN NEVADA

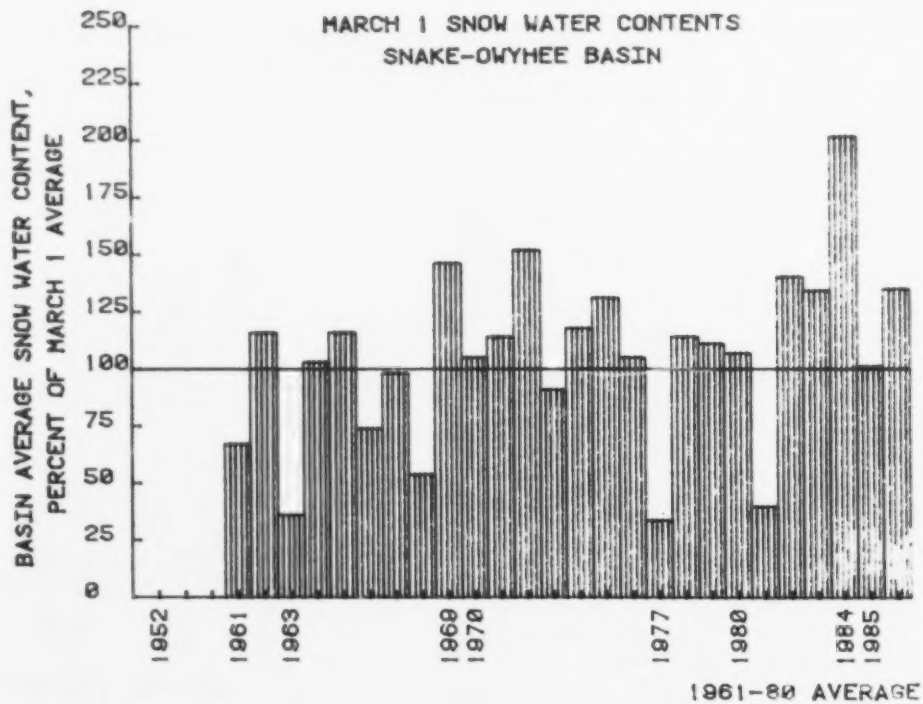
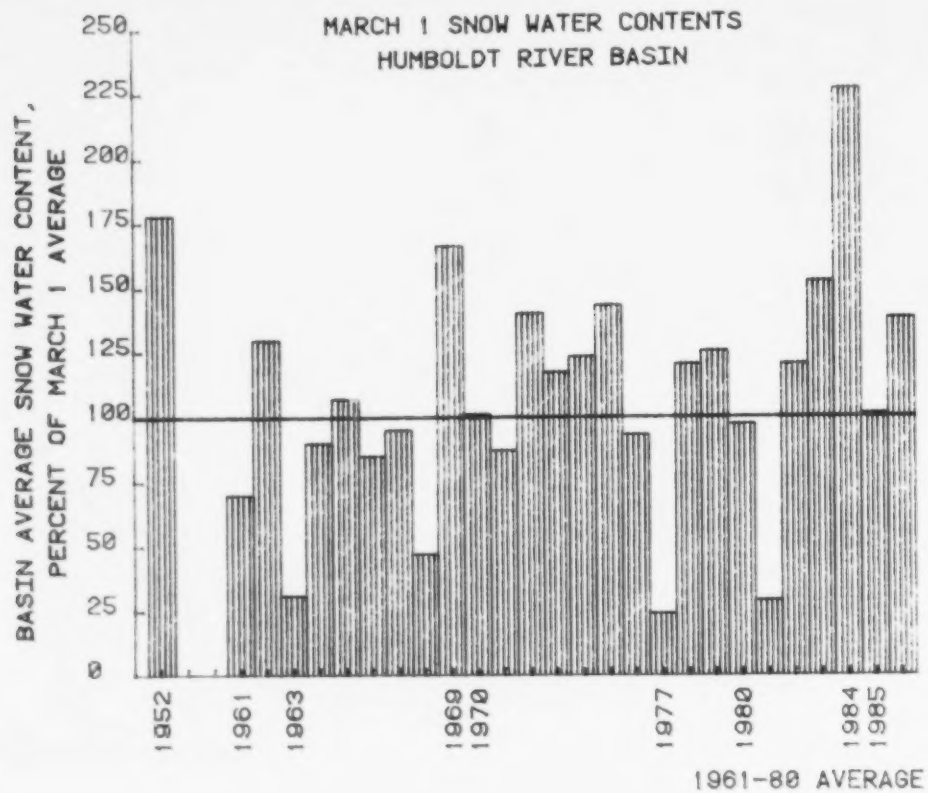
STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
VIRGIN RIVER near Hurricane, UT	APR-JUL	82.0	45.0	72	110	34				
LAKE POWELL inflow	APR-JUL	7462.0	11000.0	147	183	116				

RESERVOIR STORAGE					WATERSHED SNOWPACK ANALYSIS			
(1000AF)								
RESERVOIR	USEABLE CAPACITY	THIS YEAR	USEABLE STORAGE LAST YEAR	THIS YEAR	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE	
LAKE MOHAVE	1810.0	1981.0	1732.0	1476.0	VIRGIN Rv. at Littlefield	4	90	89
LAKE HEAD	26159.0	23321.0	23098.0	18377.0	VIRGIN Rv. at Hurricane	4	90	89

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.





The Following Organizations Cooperate With The Soil Conservation Service In Snow Survey Work

STATE

California Cooperative Snow Surveys
California Department of Parks and Recreation
California Department of Water Resources
Colorado River Commission of Nevada
Idaho Cooperative Snow Surveys
Nevada Association of Conservation Districts
Nevada Department of Conservation & Natural Resources
 Division of Water Resources
 Nevada State Forester
 Division of Conservation Districts
Oregon Cooperative Snow Surveys
University of Nevada, Desert Research Institute
Utah Cooperative Snow Surveys

FEDERAL

Bureau of Reclamation
Forest Service
Geological Survey
Soil Conservation Service
U.S. District Court - Federal Water Master
NOAA, National Weather Service

PRIVATE

Nevada Irrigation District
Owyhee Project North Board of Control
Owyhee Project South Board of Control
Pacific Gas and Electric Company
Pershing County Water Conservation District
Sierra Pacific Power Company
Truckee - Carson Irrigation District
Walker River Irrigation District
Washoe County Water Conservancy District

Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
1201 TERMINAL WAY, SECOND FLOOR
RENO, NEVADA 89502

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Water Supply Outlook

and

Federal — State — Private
Cooperative Snow Surveys



SOIL CONSERVATION SERVICE



986/4



United States
Department of
Agriculture

Soil
Conservation
Service

Reno
Nevada



Nevada Water Supply Outlook

April 1, 1986



A57.46/4:

Foreword

How Forecasts Are Made

Most of the annual streamflow in the Western United States originates as snowfall. This snowfall accumulates high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are viewed in conjunction with snowpack data to prepare runoff forecasts. This report presents a comprehensive picture of water supply outlook conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data and narratives describing current conditions.

Streamflow forecasts are cooperatively generated by Soil Conservation Service and National Weather Service hydrologists. Forecasts become more accurate as more data affecting runoff becomes known. For this reason, forecasts are issued that reflect three future precipitation conditions — Below Normal, Average, and Above Normal. These forecasts are termed reasonable minimum, most probable, and reasonable maximum. Actual streamflow can be expected to fall between the lower and upper forecast values eight out of ten years.

Snowpack data are obtained by using a combination of manual and automated measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation, temperature, and other parameters are monitored on a daily basis and transmitted via radio telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

For More Information

Copies of Monthly Water Supply Outlook Reports and other reports may be obtained from the states listed below. Because of the limited space, snow survey measurements are not published in monthly reports. An annual snow survey data summary is published by the Soil Conservation Service for each of the western states. Historical snow survey data may be obtained at those same offices.

STATE	ADDRESS
Alaska	201 East 9th Ave., Suite 300, Anchorage, AK 99501-3687
Arizona	201 East Indianola, Suite 200, Phoenix, AZ 85012
Colorado (New Mexico)	2490 West 26th Ave., Denver, CO 80211
Idaho	304 North 8th Street, Room 345, Boise, ID 83702
Montana	10 East Babcock, Room 443, Federal Building, Bozeman, MT 59715
Nevada	1201 Terminal Way, Second Floor, Reno, NV 89502
Oregon	1220 Southwest 3rd Ave., 16th Floor, Portland, OR 97204
Utah	4402 Federal Building, 125 South State Street, Salt Lake City, UT 84147
Washington	360 U.S. Court House, Spokane, WA 99201
Wyoming	Federal Building, 100 East "B" Street, Casper, WY 82602

In addition to state reports, a Water Supply Outlook for the Western United States is published by the Soil Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 547, Portland, OR 97209.

Published by other agencies:

Water Supply Outlook Reports prepared by other agencies include: California — Snow Survey Branch, California Department of Water Resources, P.O. Box 388, Sacramento, CA 95802; British Columbia — The Ministry of Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia, V8V 1X5; Yukon Territory — Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory, Y1A 3V1; Alberta, Saskatchewan, and N.W.T. — The Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta, T3C 1A6.

Nevada Water Supply Outlook

and

Federal - State - Private Cooperative Snow Surveys

Issued By

Wilson Scaling
Chief
Soil Conservation Service
Washington, DC 20013

Released By

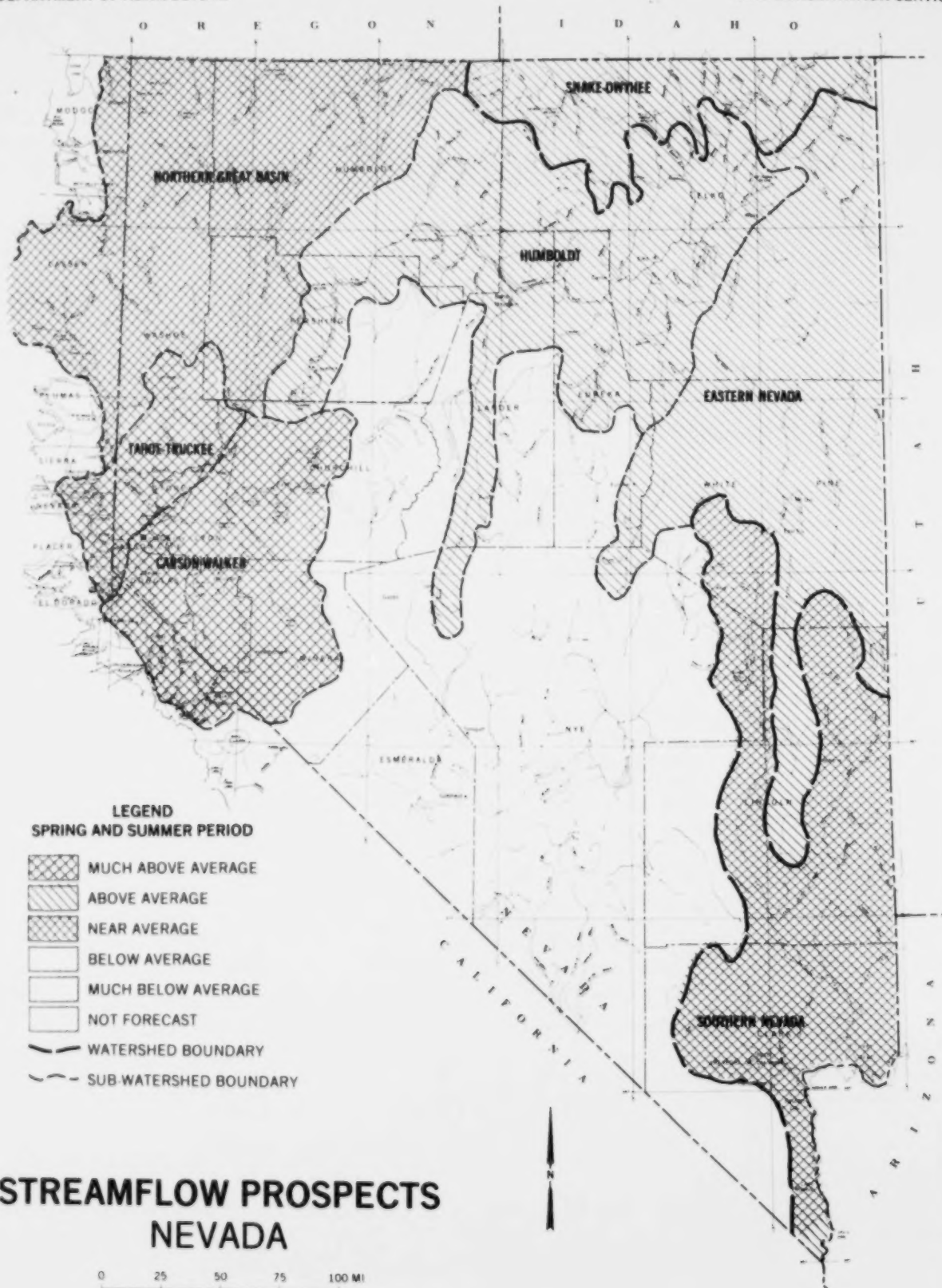
Gerald Thola
State Conservationist
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Reno, Nevada 89502

Prepared By

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Water Supply Specialist
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In Cooperation With

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Director
Department of Conservation &
Natural Resources
Carson City, Nevada 89701



GENERAL OUTLOOK

SUMMARY:

WATER SUPPLIES STATEWIDE WILL BE GOOD TO EXCELLENT FOR 1986. BASIN SNOWPACK ACCUMULATIONS RANGE FROM 100 TO 160 PERCENT OF AVERAGE. WATER YEAR PRECIPITATION IS ABOVE AVERAGE WITH THE SINGLE EXCEPTION OF SOUTHERN NEVADA. RESERVOIR STORAGE IS EXCELLENT AND SHOULD PROVIDE ADEQUATE WATER FOR ALL USES THIS SUMMER. STREAMFLOW FORECAST VALUES RANGE FROM NEAR AVERAGE TO MUCH ABOVE AVERAGE STATEWIDE. . .

SNOWPACK:

Snowpack accumulations in the seven major basins in the state are all near or above average for April 1. Carson-Walker basin has the highest snowpack total at 160 percent of average. Southern, Northern Great, Humboldt, and Snake-Owyhee basins are all near average. Tahoe-Truckee basin is 135 percent of average while the Eastern basin is 140% of average. Lower elevation snow course readings in northern and eastern Nevada are below twenty year averages, but the higher elevation readings are sufficiently above average to result in an overall above average basin snowpack total. Snow received in the Sierra during the large February storm has been retained even though above average temperatures were recorded during March. .

PRECIPITATION:

March basin-wide precipitation was below average in Humboldt, South, and Snake-Owyhee basins and above average in Tahoe-Truckee, Carson-Walker, Eastern, and Northern Great basins. March basin-wide precipitation ranged from 60 to 150 percent of average. Water year precipitation is above average in all basins with the exception of southern Nevada which is 20 percent below average. All other basins' water-year precipitation range from 120 to 130 percent of average. .

RESERVOIRS:

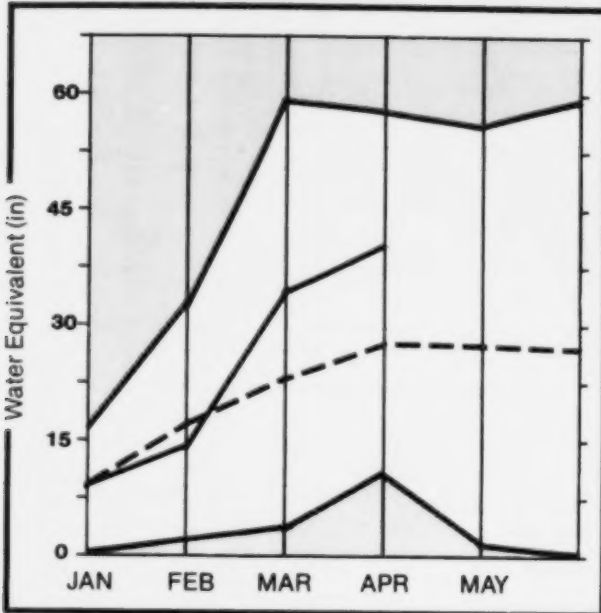
Reservoir storage on April 1 was excellent throughout Nevada. Stored water ranged from 100 to 200 percent of average. All reservoirs, with the exception of Bridgeport Reservoir, contain more stored water this year than last. Basin total storage for Tahoe-Truckee, Carson-Walker, Humboldt, and Snake-Owyhee basins was above average. Stored water in the seven major reservoirs (Roca, Lake Tahoe, Bridgeport, Lahontan, Topaz, Rye Patch, and Wildhorse) was 145 percent of average. .

STREAMFLOW:

Streamflow prospects are excellent for 1986. Forecast values range from 85 to 170 percent of average. Tahoe-Truckee basin forecast values are 120 to 160 percent of average. Carson-Walker basin streamflow will be even greater with total flow for the forecast period ranging from 150 to 170 percent of average. Below average streamflow can be expected near McDermitt, Nevada, where forecast values are approximately 90 percent of average. The only other below average forecast is for Reese River near Ione, Nevada. The forecast value for this gaging station is 90 percent of average. .

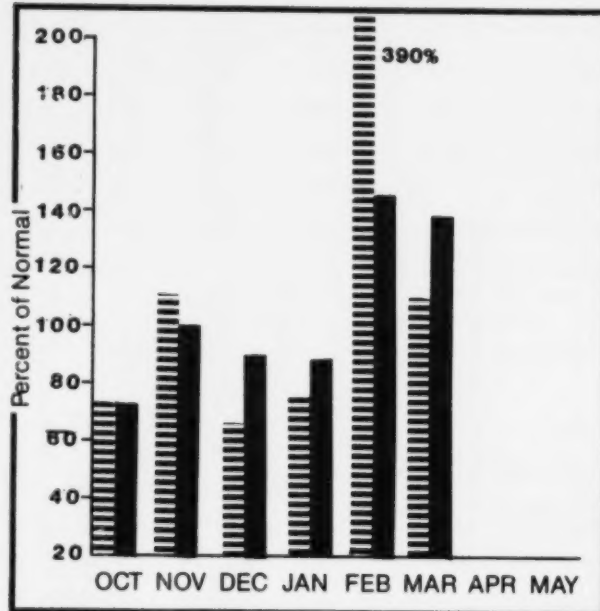
TAHOE & TRUCKEE BASINS

Mountain snowpack* (inches)



*Based on selected stations

Precipitation* (percent of normal)



*Based on selected stations

Maximum ——— Average - - - -
Minimum ——— Current ———

Monthly precipitation

Year to date precipitation

WATER SUPPLY OUTLOOK:

Water supply for the Tahoe-Truckee basin will be excellent this year. Basin snowpack accumulation is 135 percent of average for April 1. Basin wide reservoir storage is 160 percent of average, and Lake Tahoe is approximately 90 percent of capacity. All streamflow forecasts are above average. Truckee River at Farad, California, will flow 395,000 acre feet between April 1 and July 31, which is 150 percent of average. The forecasted total rise for Pyramid Lake is 8.5 feet.

For more information contact your local Soil Conservation Service office.

TAHOE & TRUCKEE BASINS

STREAMFLOW FORECASTS

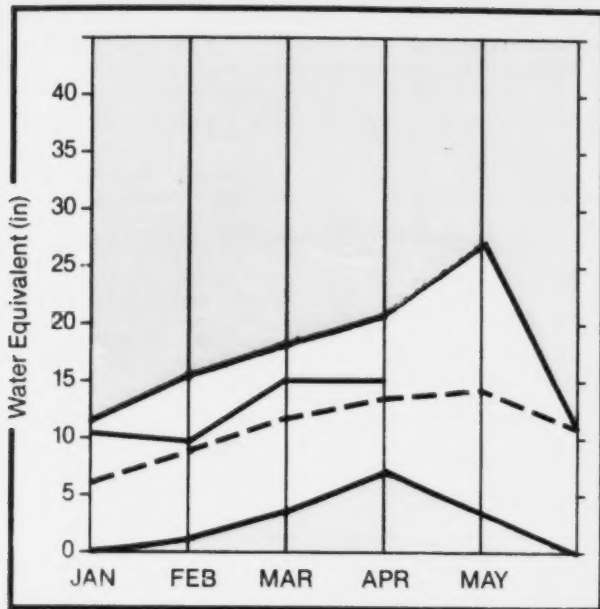
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
LAKE TAHOE RISE (assume gates closed)	APR-HIG	1.3	2.2	150	216	144				
TRUCKEE RIVER at Farad, Ca	APR-JUL	269.0	395.0	146	173	121				
LITTLE TRUCKEE RIVER above Boca, Ca	APR-JUL	92.5	132.0	142	176	109				
PYRAMID LAKE RISE (LOW 12/1/85)	LOW-HIG	1.1	8.5	206	229	186				
STEAMBOAT CREEK at Steamboat, Nv	APR-JUL	5.2	8.0	153	192	115				
SAGEHEN CREEK, Ca	APR-JUL	6.5	10.0	153	185	123				
GALENA CREEK nr Steamboat, Nv	APR-JUL	4.4	6.8	154	182	114				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	% OF AVERAGE
BOCA RESERVOIR	40.9	30.3	18.0	21.4	LAKE TAHOE RISE	13	155	142
LAKE TAHOE	744.6	637.6	548.0	423.1	TRUCKEE BASIN	16	151	134
PROSSER RESERVOIR	28.6	9.4	9.0	8.3	LITTLE TRUCKEE RIVER	5	133	136
STAMPEDE RESERVOIR	226.5	204.7	194.0	110.7	SAGE HEN CREEK	5	137	124
					GALENA CREEK	3	193	154
					STEAMBOAT DRAINAGE	2	188	148
					PYRAMID LAKE	29	153	137

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

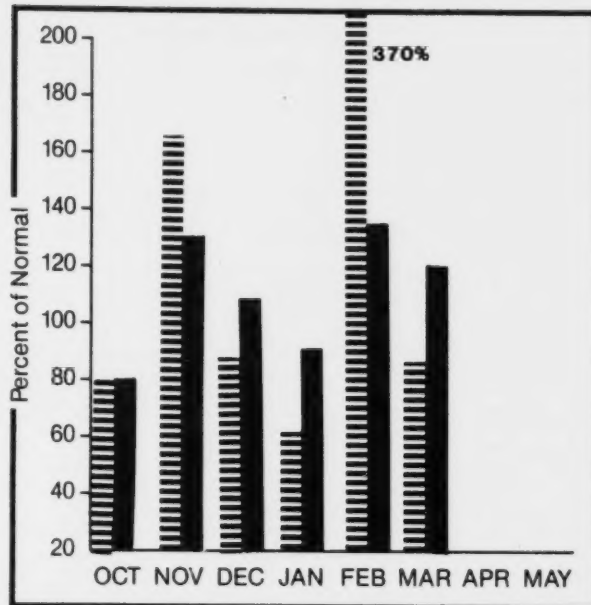
SNAKE & OWYHEE BASINS

Mountain snowpack* (inches)



*Based on selected stations

Precipitation* (percent of normal)



*Based on selected stations

Maximum  Average 
 Minimum  Current 
 Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

Combined basin snowpack accumulation is 110 percent of average for April 1. Wildhorse Reservoir storage is at capacity and 200 percent of average. Stream-flow forecasts for April through July average 125 percent of average. Owyhee River near Gold Creek is forecasted at 27,500 acre feet while Owyhee River near Owyhee will flow 100,000 acre feet. South Fork Owyhee near White Rock, Nevada, is expected to flow 108,000 acre feet which is 130 percent of average.

For more information contact your local Soil Conservation Service office.

SNAKE & OWYHEE BASINS

STREAMFLOW FORECASTS

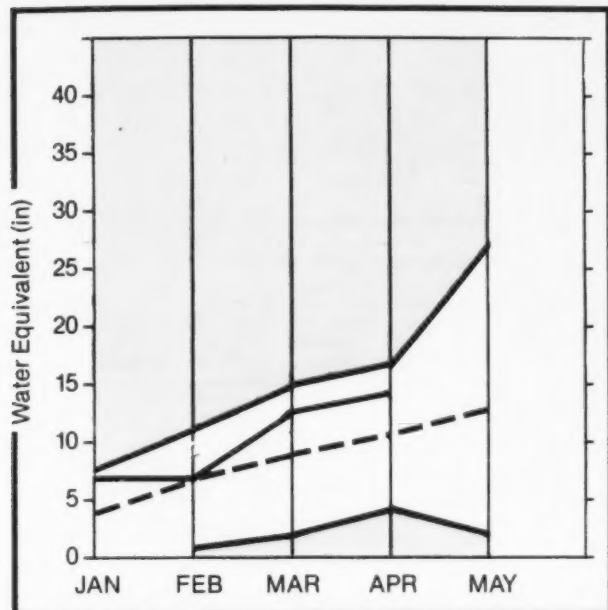
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
OWYHEE RIVER nr Gold Creek	APR-JUL	22.0	27.5	125	168	82				
OWYHEE RIVER nr Owyhee	APR-JUL	85.4	100.0	117	158	76				
S FORK OWYHEE nr White Rock, Nv	APR-JUL	83.0	108.0	130	171	89				

RESERVOIR STORAGE (1000AF)				WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE
WILDHORSE RESERVOIR	71.5	70.4	55.0	34.7	OWYHEE RIVER nr Owyhee	7	103
					OWYHEE Rv. nr Gold Creek	4	103
					S. FORK OWYHEE RIVER	7	103
					SALMON FALLS CREEK	4	97

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

EASTERN NEVADA

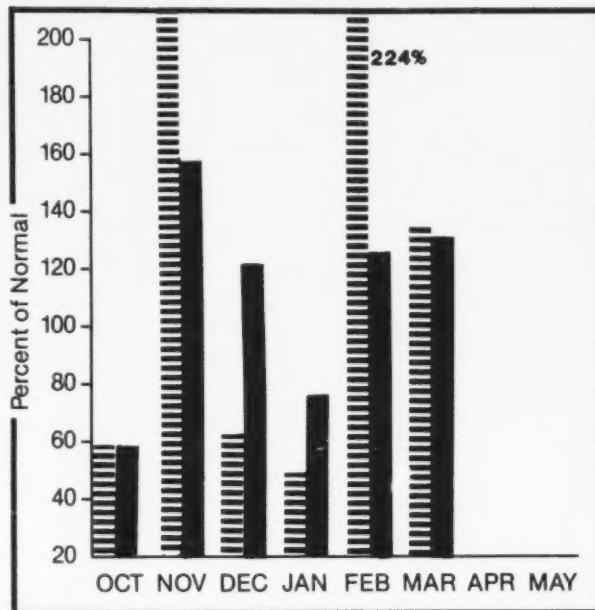
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - - -
Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Water supplies will be good this summer with snowpack accumulations at 140 percent of average. Water content values at snow courses below 7500 feet elevation are near or slightly below average while higher elevation courses are reporting values well above average. Streamflow forecasts are all above average for the April through July period. Steptoe Creek near Ely, Nevada, is forecasted at 2900 acre feet or 145 percent of average while Kingston Creek near Austin, Nevada, will flow 3800 acre feet.

For more information contact your local Soil Conservation Service office.

EASTERN NEVADA

STREAMFLOW FORECASTS

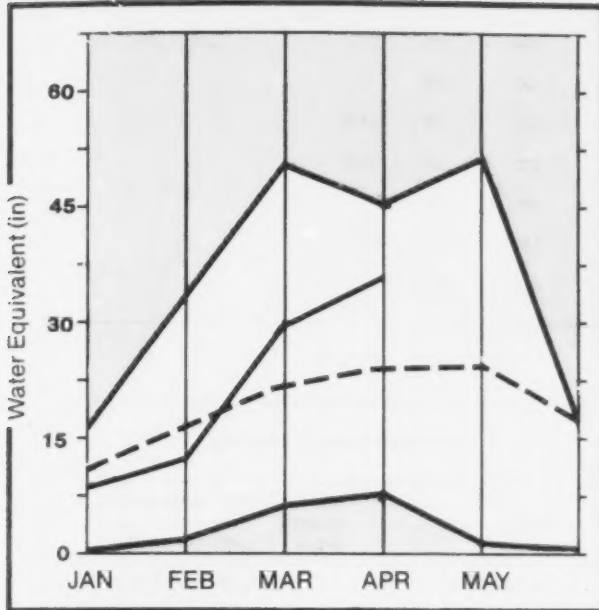
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	HIST PROBABLE (1000AF)	HIST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
STEPTOE CREEK nr Ely	APR-JUL	2.0	2.9	145	200	100				
KINGSTON CREEK nr Austin, Nv	APR-JUL	3.3	3.8	115	182	61				
FRANKLIN RIVER nr Arthur	APR-JUL	5.9	6.8	115	169	51				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	THIS YEAR	USEABLE STORAGE THIS YEAR	LAST YEAR	AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE
						FRANKLIN RIVER	3	112 110
						KINGSTON CREEK	1	90 143
						EASTERN NEVADA	5	86 119
						STEPTOE VALLEY	2	98 127

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

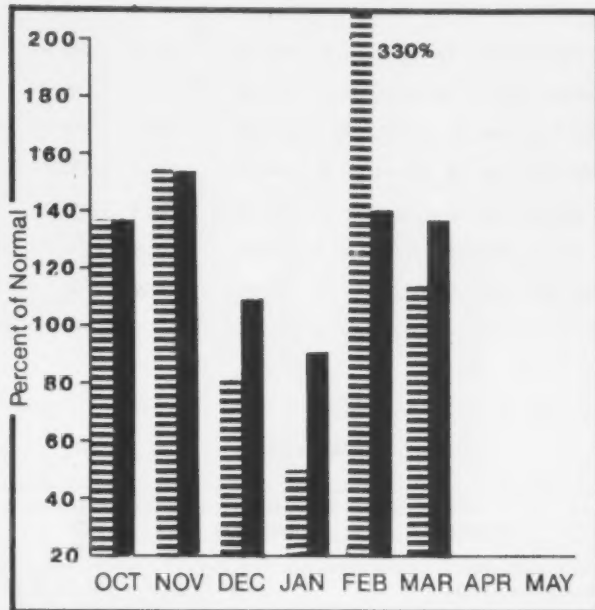
CARSON & WALKER BASINS

Mountain snowpack* (inches)



*Based on selected stations

Precipitation* (percent of normal)



*Based on selected stations

Maximum



Average



Minimum



Current



Monthly precipitation



Year to date precipitation



WATER SUPPLY OUTLOOK:

Basin snowpack is 160 percent of average and summer water supplies will be excellent. Reservoir storage is above average for April 1 with Topaz Reservoir approximately 115 percent of average. Streamflow forecasts range from 150 to 170 percent of average. East Fork Carson River near Gardnerville, will flow 285,000 acre feet or 150% of average during the April 1 to July 31 forecast period. West Walker River near Coleville, California, is forecasted at 240,000 acre feet which is 160 percent of average.

For more information contact your local Soil Conservation Service office.

CARSON & WALKER BASINS

STREAMFLOW FORECASTS

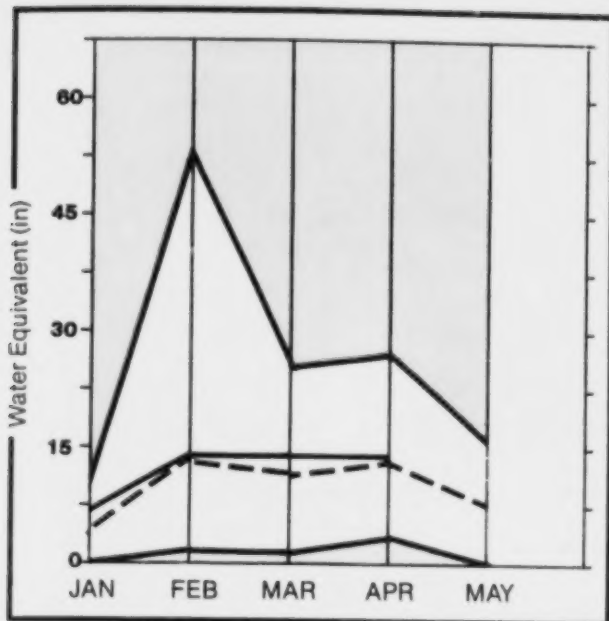
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	HIST PROBABLE (1000AF)	HIST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
EF CARSON RIVER nr Gardnerville, Nv	APR-JUL	187.0	295.0	152	190	125	2737		200	JUL 8
WF CARSON RIVER at Woodfords, Ca	APR-JUL	53.0	84.0	150	109	128				
CARSON RIVER near Carson City, Nv	APR-JUL	182.0	300.0	164	196	134	3370			
CARSON RIVER near Ft. Churchill, Nv	APR-JUL	166.0	290.0	160	201	137	3104			
EAST WALKER RIVER nr Bridgeport, Ca	APR-AUG	66.0	110.0	166	209	124				
WEST WALKER RIVER near Coleville, Ca	APR-JUL	148.0	240.0	162	184	140	2873			
WALKER LAKE RISE (LOW 1/6/86)	LOW-HIG	-0.0	6.7	294	364	242				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	% OF AVERAGE
BRIDGEPORT RESERVOIR	42.5	32.2	42.0	33.5	E. CARSON RIVER	7	178	158
LAHONTAN RESERVOIR	295.1	300.1	244.0	226.6	W. CARSON RIVER	5	155	146
TOPAZ RESERVOIR	59.4	51.2	34.0	43.8	CARSON Rv. at Carson City	5	174	158
					CARSON Rv. at Ft. Churchi	5	174	158
					E. WALKER Rv. nr Bridgepo	6	193	174
					W. WALKER Rv. nr Colevill	8	192	169
					WALKER LAKE RISE	9	191	170

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

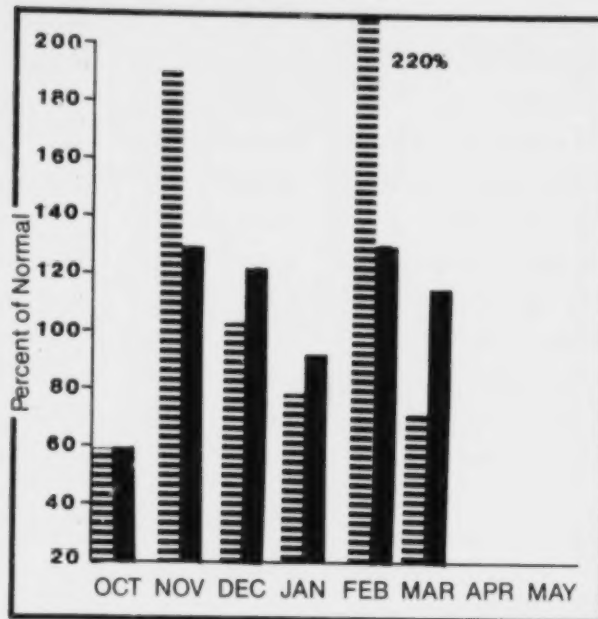
HUMBOLDT BASIN

Mountain snowpack* (inches)



*Based on selected stations

Precipitation* (percent of normal)



*Based on selected stations

Maximum ——— Average - - - -
Minimum ——— Current ———

Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

Basin snowpack accumulations are average for April 1 and water supplies will be good. Streamflow forecast values range from 90 to 140 percent of average. Humboldt River at Palisade will flow 300,000 acre feet between April and July which is 130 percent of average. Rock Creek near Battle Mountain, Nevada, is forecasted at 22,000 acre feet or 135 percent of average. Rye Patch Reservoir was 92 percent of capacity on April 1 which is 150 percent of average.

For more information contact your local Soil Conservation Service office.

HUMBOLDT BASIN

STREAMFLOW FORECASTS

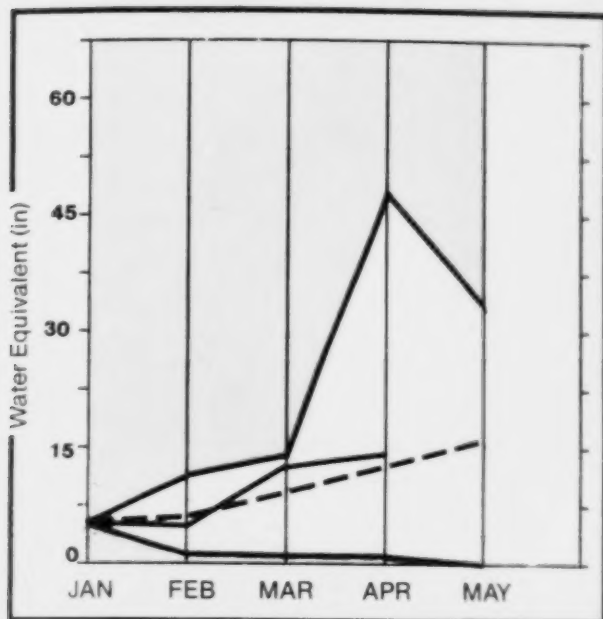
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
HUMBOLDT RIVER at Palisade	APR-JUL	230.0	300.0	130	196	66				
HUMBOLDT RIVER at Comus	APR-JUL	173.0	235.0	135	227	45				
S FORK HUMBOLDT RIVER at Dixie	APR-JUL	75.0	98.0	130	188	73				
NF HUMBOLDT RIVER at Devils Gate	APR-JUL	34.8	42.0	120	178	43				
MARY'S RIVER nr Death	APR-JUL	36.9	45.0	121	160	84				
MARTIN CREEK nr Paradise Hv	APR-JUL	15.8	22.0	139	165	114				
LAMOILLE CREEK nr Lamoille	APR-JUL	28.7	40.0	139	171	100				
REESE RIVER nr Lone Hv	APR-JUL	6.6	6.0	90	152	30				
L. HUMBOLDT RIVER nr Paradise Valley	APR-JUL	9.7	15.0	154	186	124				
ROCK CREEK nr Battle Mtn.	APR-JUL	16.0	22.0	137	194	81				

RESERVOIR STORAGE					(1000AF)	WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE	
RYE PATCH RESERVOIR	194.3	178.9	168.0	118.0	LAMOILLE CREEK	3	122	128	
					S. FORK HUMBOLDT	11	97	104	
					MARY'S RIVER	5	100	108	
					N. FORK HUMBOLDT	9	93	99	
					HUMBOLDT Rv. at Palisades	12	111	115	
					HUMBOLDT RIVER at Comus	12	111	115	
					LITTLE HUMBOLDT RIVER	2	86	114	
					MARTIN CREEK	3	84	110	
					REESE RIVER	1	90	163	
					ROCK CREEK	3	45	66	

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

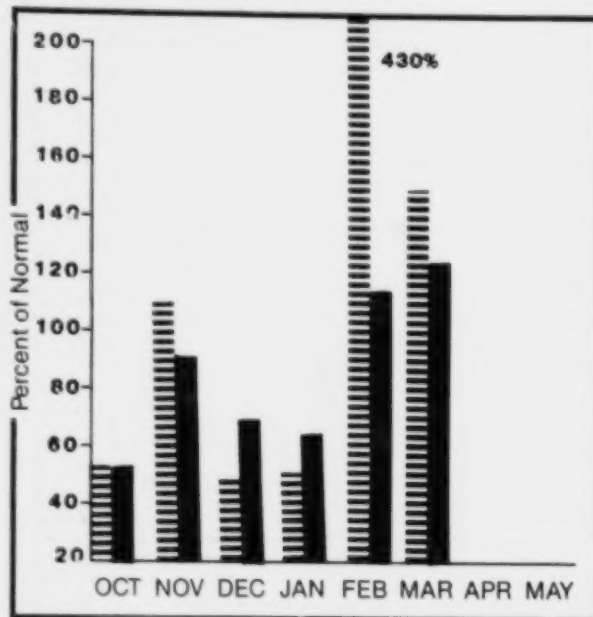
NORTHERN GREAT BASIN

Mountain snowpack* (inches)



*Based on selected stations

Precipitation* (percent of normal)



*Based on selected stations

Maximum ———
Minimum ———

Average - - - - -
Current ———

Monthly precipitation 

Year to date precipitation 

WATER SUPPLY OUTLOOK:

Snow measurements at snow courses indicate average accumulations for the western portion of the basin and below average water content in eastern areas. Streamflow for Sierra streams will be 120 to 130 of average. Forecasts for Quinn River and McDermitt Creek are 15 to 20 percent below average. Quinn River near McDermitt, Nevada, will flow 14,000 acre feet or 90 percent of average. Bidwell Creek near Fort Bidwell, California, is forecasted at 14,500 acre feet which is 120 percent of average.

For more information contact your local Soil Conservation Service office.

NORTHERN GREAT BASIN

STREAMFLOW FORECASTS

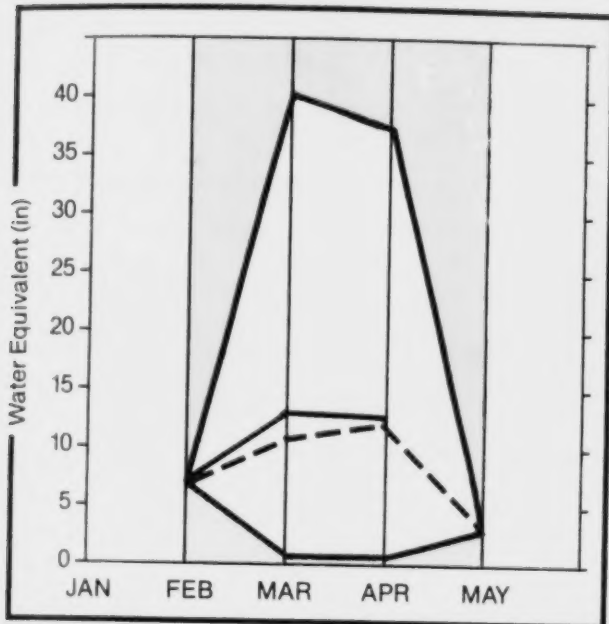
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
BIDWELL CREEK nr Fort Bidwell	APR-JUL	12.0	14.5	120	150	83				
DEEP CREEK nr Cedarville, Ca	APR-JUL	3.6	4.5	124	167	83				
EAGLE CREEK nr Eagleville, Ca	APR-JUL	4.3	5.5	127	163	93				
MILL CREEK nr Cedarville, Ca	APR-JUL	4.1	5.0	121	171	73				
QUINN RIVER nr McDermitt, Nev	APR-JUL	16.0	14.0	87	113	43				
E. FORK QUINN RIVER nr McDermitt	APR-JUL	13.0	11.0	84	115	54				
MCDERMITT CREEK nr McDermitt	APR-JUL	12.0	10.0	83	108	50				

RESERVOIR STORAGE					(1000AF)	WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF		
		THIS YEAR	LAST YEAR	AVE.			LAST YR.	AVERAGE	
					BIDWELL	5	98	122	
					MILL CREEK	2	102	128	
					DEEP CREEK	2	102	128	
					EAGLE CREEK	2	102	128	
					QUINN RIVER	2	70	78	
					E. FORK QUINN	2	70	78	
					MCDERMITT CREEK	2	70	78	

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

SOUTHERN NEVADA

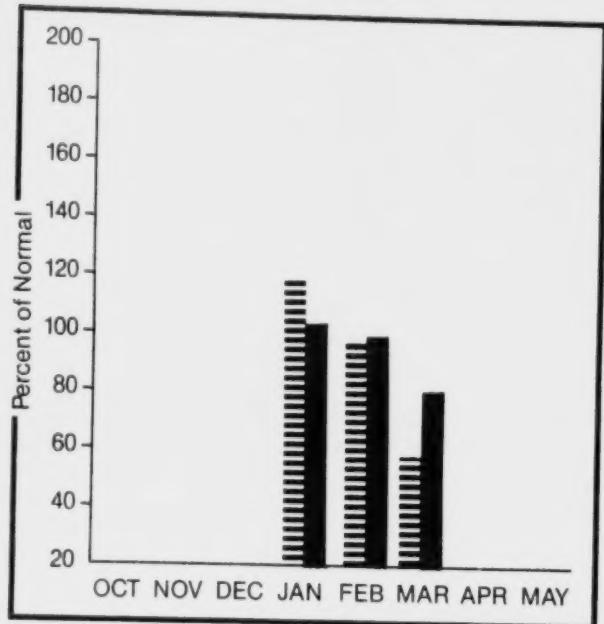
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - - -
Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

Snowpack accumulations in southern Nevada are average for April 1. Water supplies will vary throughout the basin. Runoff in the Spring Mountains west of Las Vegas should be average while water levels in Mohave and Mead will be excellent. Streamflow in the Virgin River will be below average for the April through July period. March precipitation was 60 percent of average and contributes to a water-year total only 80 percent of average.

For more information contact your local Soil Conservation Service office.

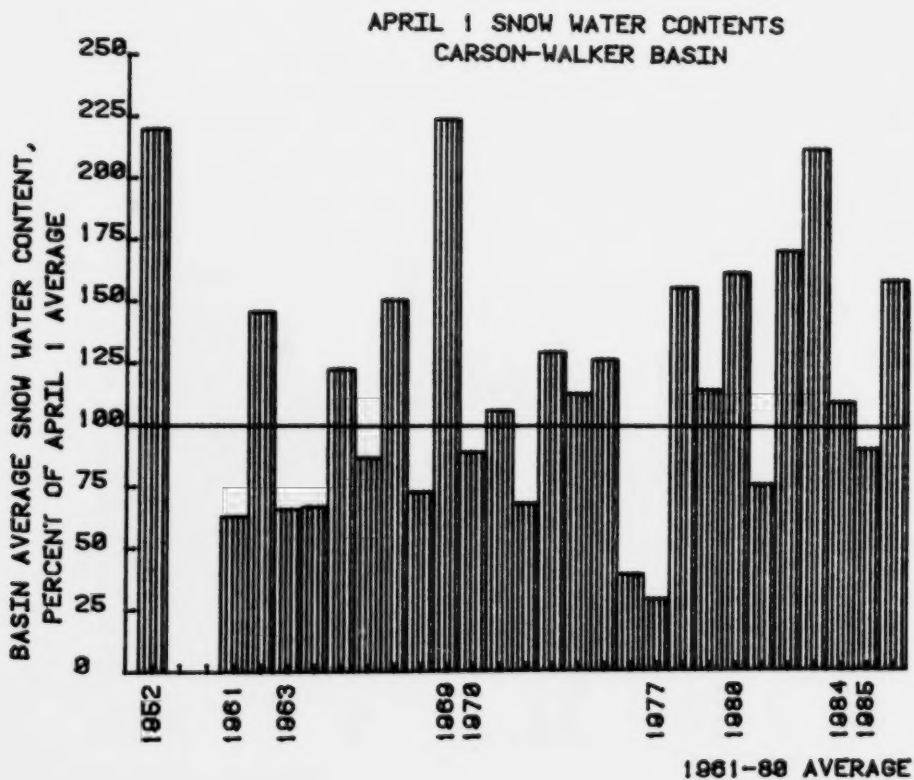
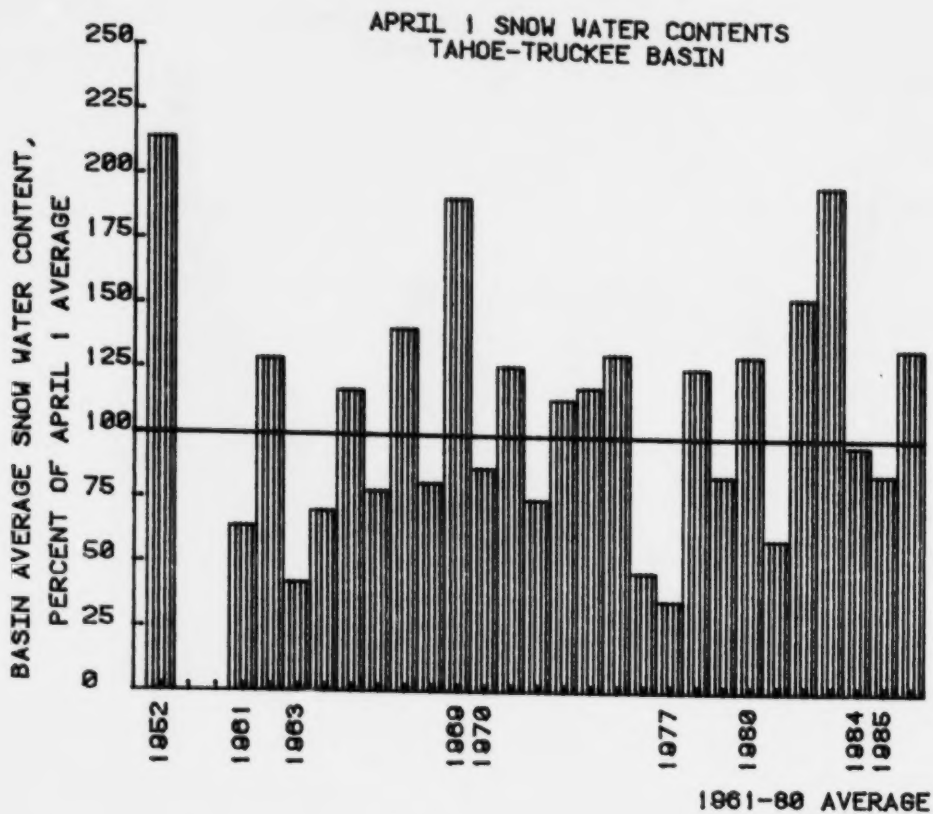
SOUTHERN NEVADA

STREAMFLOW FORECASTS

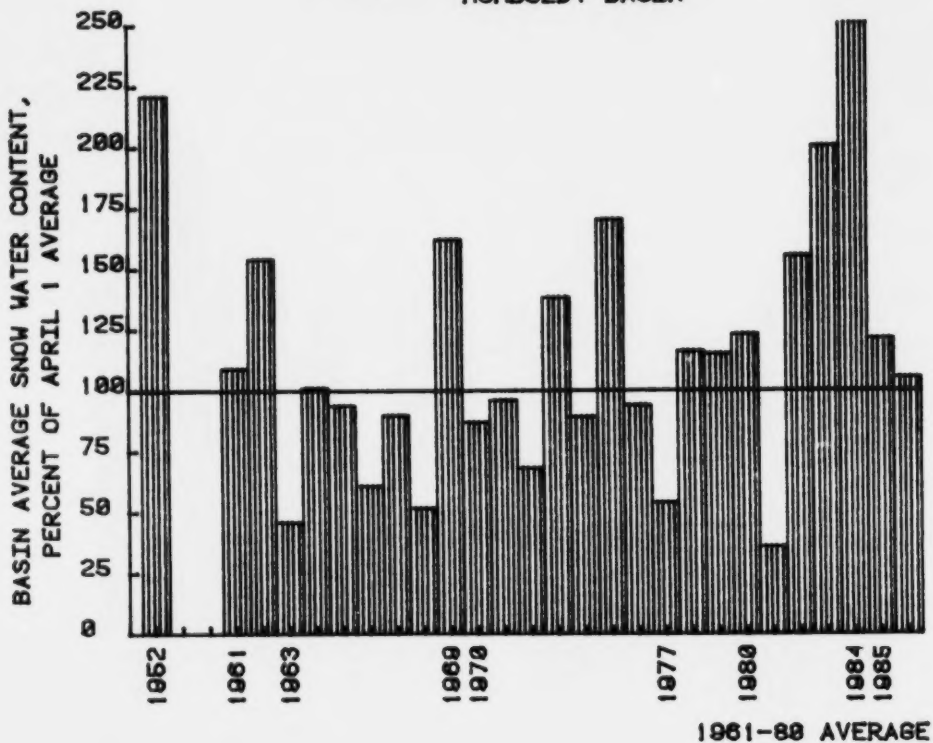
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
VIRGIN RIVER near Hurricane, UT	APR-JUL	62.0	55.0	88	123	56				
LAKE POWELL inflow	APR-JUL	7462.0	10800.0	144	173	120				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	THIS YEAR	USEABLE STORAGE LAST YEAR	XX AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE	
LAKE MOHAVE	1810.0	1665.2	1732.6	1666.0	VIRGIN Rv. at Littlefield	4	80	75
LAKE MEAD	26159.0	23273.0	23861.0	18170.0	VIRGIN Rv. at Hurricane	4	80	75

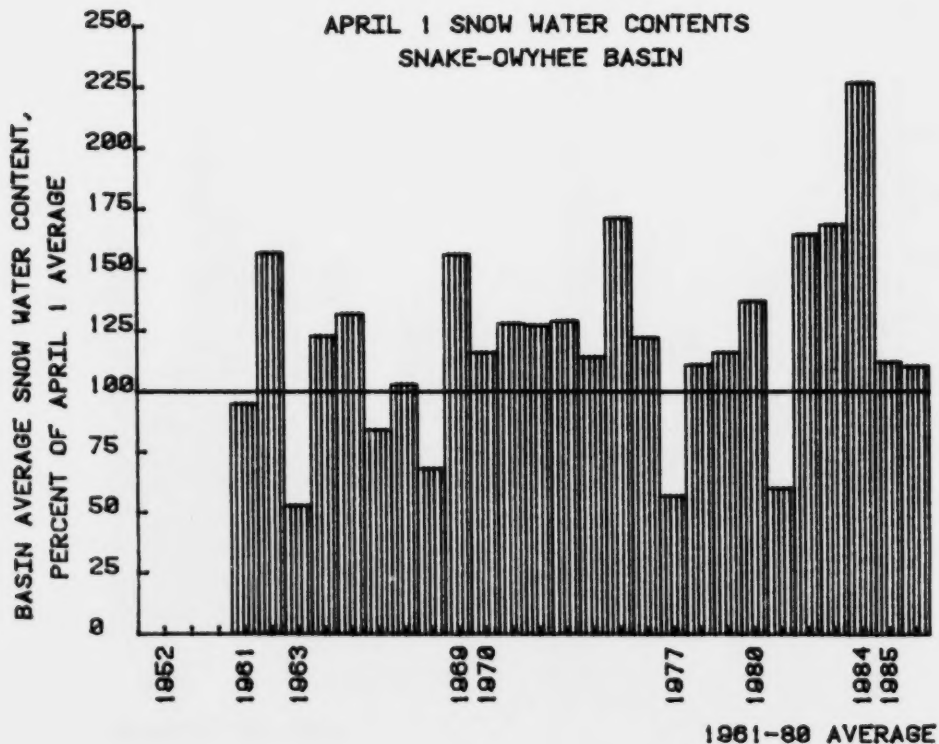
*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.



APRIL 1 SNOW WATER CONTENTS HUMBOLDT BASIN



APRIL 1 SNOW WATER CONTENTS SNAKE-OWYHEE BASIN



The Following Organizations Cooperate With The Soil Conservation Service In Snow Survey Work

STATE

California Cooperative Snow Surveys
California Department of Parks and Recreation
California Department of Water Resources
Colorado River Commission of Nevada
Idaho Cooperative Snow Surveys
Nevada Association of Conservation Districts
Nevada Department of Conservation & Natural Resources
 Division of Water Resources
 Nevada State Forester
 Division of Conservation Districts
Oregon Cooperative Snow Surveys
University of Nevada, Desert Research Institute
Utah Cooperative Snow Surveys

FEDERAL

Bureau of Reclamation
Forest Service
Geological Survey
Soil Conservation Service
U.S. District Court - Federal Water Master
NOAA, National Weather Service

PRIVATE

Nevada Irrigation District
Owyhee Project North Board of Control
Owyhee Project South Board of Control
Pacific Gas and Electric Company
Pershing County Water Conservation District
Sierra Pacific Power Company
Truckee - Carson Irrigation District
Walker River Irrigation District
Washoe County Water Conservancy District

Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
1201 TERMINAL WAY, SECOND FLOOR
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SOIL CONSERVATION SERVICE

986/5



United States
Department of
Agriculture

Soil
Conservation
Service

Reno
Nevada



Nevada Water Supply Outlook

May 1, 1986



A 57.46/4:

Foreword

How Forecasts Are Made

Most of the annual streamflow in the Western United States originates as snowfall. This snowfall accumulates high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are viewed in conjunction with snowpack data to prepare runoff forecasts. This report presents a comprehensive picture of water supply outlook conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data and narratives describing current conditions.

Streamflow forecasts are cooperatively generated by Soil Conservation Service and National Weather Service hydrologists. Forecasts become more accurate as more data affecting runoff becomes known. For this reason, forecasts are issued that reflect three future precipitation conditions — Below Normal, Average, and Above Normal. These forecasts are termed reasonable minimum, most probable, and reasonable maximum. Actual streamflow can be expected to fall between the lower and upper forecast values eight out of ten years.

Snowpack data are obtained by using a combination of manual and automated measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation, temperature, and other parameters are monitored on a daily basis and transmitted via radio telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

For More Information

Copies of Monthly Water Supply Outlook Reports and other reports may be obtained from the states listed below. Because of the limited space, snow survey measurements are not published in monthly reports. An annual snow survey data summary is published by the Soil Conservation Service for each of the western states. Historical snow survey data may be obtained at those same offices.

STATE	ADDRESS
Alaska	201 East 9th Ave., Suite 300, Anchorage, AK 99501-3687
Arizona	201 East Indianola, Suite 200, Phoenix, AZ 85012
Colorado (New Mexico)	2490 West 26th Ave., Denver, CO 80211
Idaho	304 North 8th Street, Room 345, Boise, ID 83702
Montana	10 East Babcock, Room 443, Federal Building, Bozeman, MT 59715
Nevada	1201 Terminal Way, Second Floor, Reno, NV 89502
Oregon	1220 Southwest 3rd Ave., 16th Floor, Portland, OR 97204
Utah	4402 Federal Building, 125 South State Street, Salt Lake City, UT 84147
Washington	360 U.S. Court House, Spokane, WA 99201
Wyoming	Federal Building, 100 East "B" Street, Casper, WY 82602

In addition to state reports, a Water Supply Outlook for the Western United States is published by the Soil Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 547, Portland, OR 97209.

Published by other agencies:

Water Supply Outlook Reports prepared by other agencies include: California — Snow Survey Branch, California Department of Water Resources, P.O. Box 388, Sacramento, CA 98502; British Columbia — The Ministry of Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia, V8V 1X5; Yukon Territory — Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory, Y1A 3V1; Alberta, Saskatchewan, and N.W.T. — The Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta, T3C 1A6.

Nevada Water Supply Outlook

and

Federal - State - Private Cooperative Snow Surveys

Issued By

Wilson Scaling
Chief
Soil Conservation Service
Washington, DC 20013

Released By

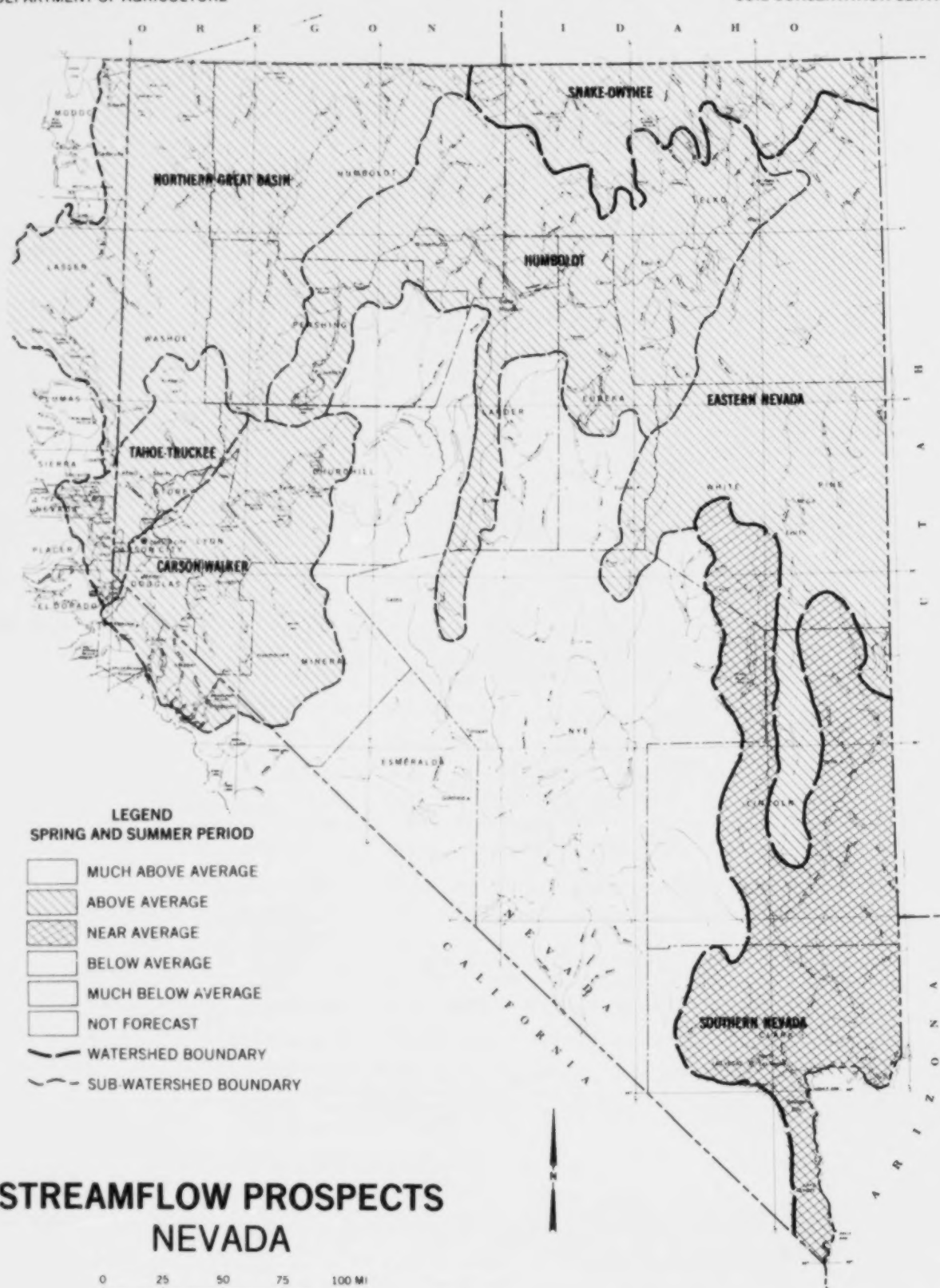
Gerald Thola
State Conservationist
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Reno, Nevada 89502

Prepared By

John R. Capurro
Water Supply Specialist
Soil Conservation Service
1201 Terminal Way, Second Floor
Reno, Nevada 89502

In Cooperation With

Roland D. Westergard
Director
Department of Conservation &
Natural Resources
Carson City, Nevada 89701



GENERAL OUTLOOK

SUMMARY:

WATER SUPPLIES STATEWIDE WILL BE GOOD TO EXCELLENT FOR 1986. BASIN SNOWPACK ACCUMULATIONS RANGE FROM 80 TO 130 PERCENT OF AVERAGE. WATER YEAR PRECIPITATION IS ABOVE AVERAGE THROUGHOUT NEVADA. RESERVOIR STORAGE IS EXCELLENT AND SHOULD PROVIDE ADEQUATE WATER FOR ALL USES THIS SUMMER. STREAMFLOW FORECAST VALUES RANGE FROM NEAR AVERAGE TO MUCH ABOVE AVERAGE STATEWIDE.

SNOWPACK:

May 1 snowpack in western and northern Nevada basins was at or above average. Tahoe-Truckee is 100 percent of average, Humboldt 120 percent, and Carson-Walker and Northern Nevada 125 percent. Eastern, Snake-Owyhee, and Southern Nevada are 75 to 80 percent of average. Warm temperatures and below average precipitation in Tahoe-Truckee and Carson-Walker basins resulted in melting of lower elevation snow-pack. High elevation snowpack statewide remains good and should provide ample run-off for streamflow through mid-summer.

PRECIPITATION:

Precipitation totals varied widely throughout Nevada during April. Tahoe-Truckee and Carson-Walker were significantly below average with values 50 and 35 percent of average respectively. Snake-Owyhee April precipitation was 150 percent of average while Eastern, Humboldt, and Northern Great basins were approximately 200 percent of average. Water year total precipitation for all basins is 120 to 190 percent of average.

RESERVOIRS:

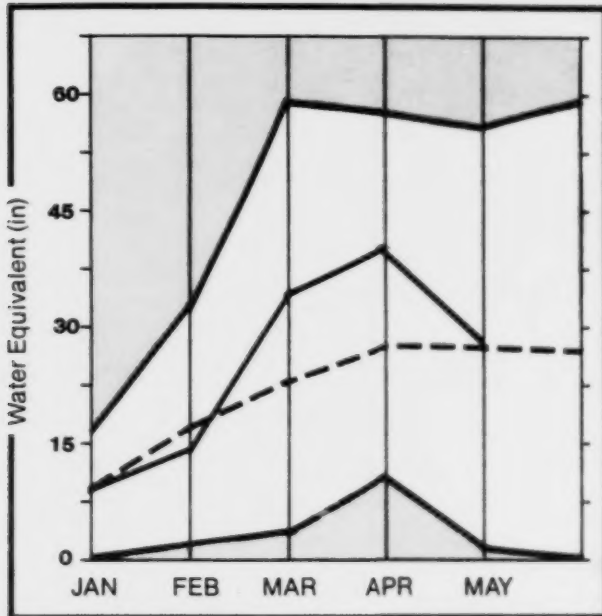
Reservoir storage is excellent statewide. Tahoe-Truckee storage facilities are 150 percent of average while Carson-Walker reservoirs are 125 percent of average. Rye Patch Reservoir is 95 percent of capacity and 150 percent of May 1 averages. Lahontan and Wildhorse reservoirs are both full and significantly above average. Total storage in the seven major reservoirs (Boca, Bridgeport, Lahontan, Topaz, Rye Patch, Wildhorse, and Lake Tahoe) is 140 percent of twenty year May 1 averages.

STREAMFLOW:

Streamflows statewide will be good to excellent. Western Nevada streams and rivers will produce April through July flows between 130 and 170 percent of average. Humboldt and Snake-Owyhee basins will flow at 120 to 140 percent of twenty year averages. Eastern Nevada streamflow forecasts are 115 to 145 percent of average. Only four forecasts are below average (Quinn River near McDermitt, East Fork Quinn River near McDermitt, McDermitt Creek near McDermitt, and Reese River near Ione) and these values are only 10 percent below average.

TAHOE & TRUCKEE BASINS

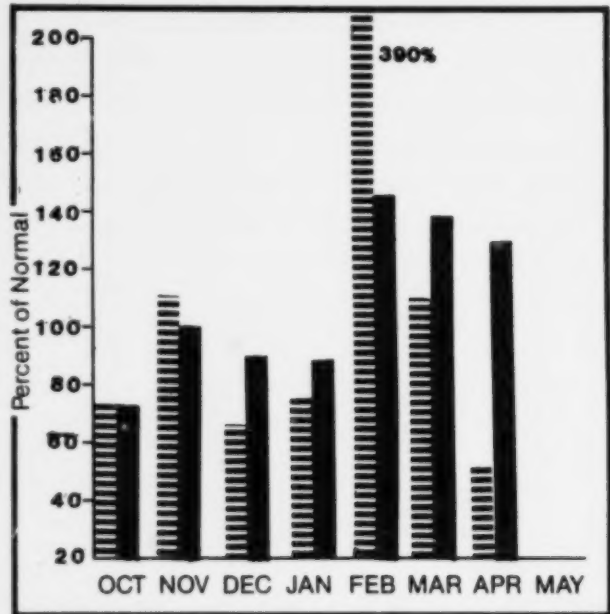
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - -
Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Snowpack water content is average for May 1. Lower elevation snowpack is below average while higher elevation snowpack remains above average. Reservoir storage is 150 percent of average and summer water supplies will be good despite the fact precipitation during April was only 50 percent of average. April through July streamflow forecast for Truckee River at Farad, California, remains the same as last month at 395,000 acre feet or 145 percent of average.

For more information contact your local Soil Conservation Service office.

TAHOE & TRUCKEE BASINS

STREAMFLOW FORECASTS

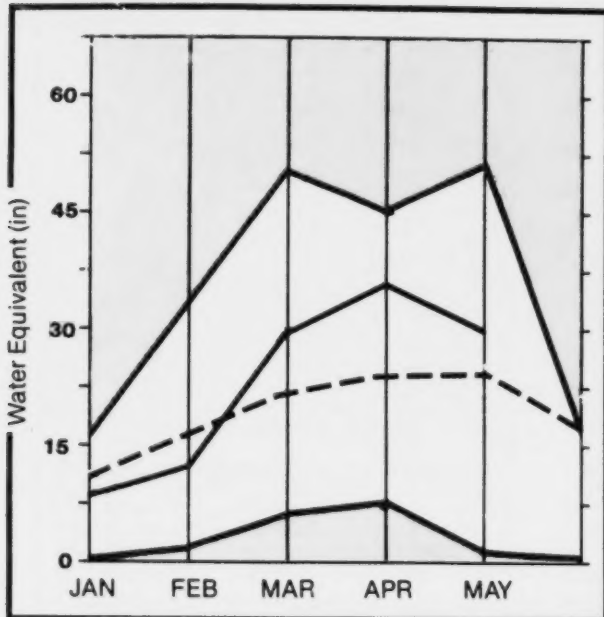
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
LAKE TAHOE RISE (assume gates closed)	APR-MTG	1.3	2.2	158	144	144				
TRUCKEE RIVER at Farad, Ca	APR-JUL	269.0	395.0	144	169	125				
LITTLE TRUCKEE RIVER above Boca, Ca	APR-JUL	92.5	132.0	142	163	123				
PYRAMID LAKE PISE (LOW 12/1/85)	LOW-HIG	1.1	8.5	204	229	186				
STEAMBOAT CREEK at Steamboat, Nv	APR-JUL	5.2	8.0	153	173	135				
SAGEHEN CREEK, Ca	APR-JUL	6.5	10.0	153	169	138				
GALENA CREEK nr Steamboat, Nv	APR-JUL	4.4	6.8	154	182	136				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE THIS YEAR	STOPAGE LAST YEAR	AVE.	WATERSHED	NO. COURSES AVE. D	THIS YEAR AS % OF LAST YR.	% OF AVERAGE
BOCA RESERVOIR	40.9	31.3	36.0	29.9	LAKE TAHOE PISE	7	212	98
LAKE TAHOE	744.6	653.6	581.0	443.0	TRUCKEE BASIN	10	210	100
PROSSER RESERVOIR	28.6	19.1	17.0	12.7	LITTLE TRUCKEE RIVER	3	208	94
STAMPEDE RESERVOIR	226.5	192.1	181.0	116.2	SAGE HEN CREEK	3	208	94
					GALENA CREEK	3	233	135
					STEAMBOAT DRAINAGE	2	224	141
					PYRAMID LAKE	17	211	99

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

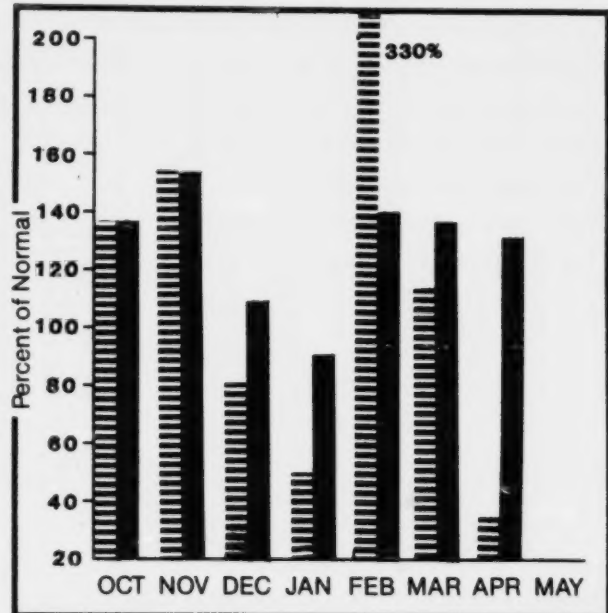
CARSON & WALKER BASINS

Mountain snowpack* (inches)



*Based on selected stations

Precipitation* (percent of normal)



*Based on selected stations

Maximum



Average



Minimum



Current



Monthly precipitation



Year to date precipitation



WATER SUPPLY OUTLOOK:

Snowpack amounts remain above average for both basins. Overall snowpack is 125 percent of average with Carson basin 120 percent of average and Walker basin 130 percent of average. Precipitation during April was only 35 percent of average. Reservoir storage is excellent with Lahontan Reservoir 100 percent of capacity. April through July streamflow forecasts remain the same as those prepared last month. Carson River near Fort Churchill will flow 280,000 acre feet or 165 percent of average.

For more information contact your local Soil Conservation Service office.

CARSON & WALKER BASINS

STREAMFLOW FORECASTS

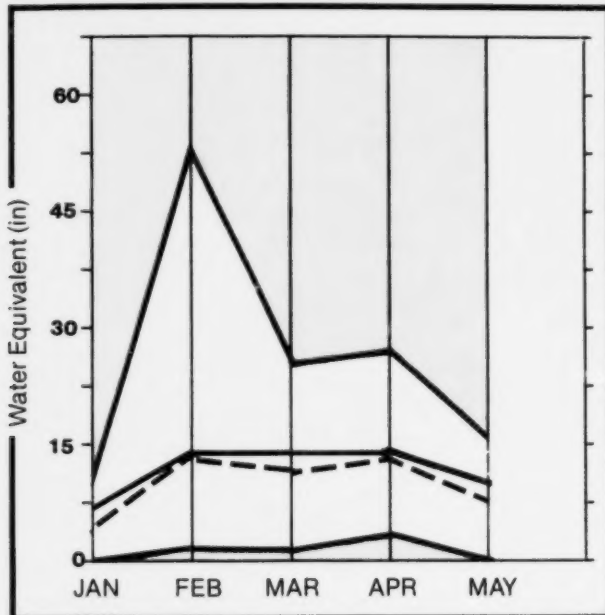
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
EF CARSON RIVER nr Gardnerville, Nv	APR-JUL	187.0	285.0	152	165	140	2690		200	JUL 8
WF CARSON RIVER at Woodfords, Ca	APR-JUL	53.0	85.0	160	177	143				
CARSON RIVER near Carson City, Nv	APR-JUL	182.0	300.0	164	183	147	3370			
CARSON RIVER near Ft. Churchill, Nv	APR-JUL	166.0	280.0	168	227	111	3104			
EAST WALKER RIVER nr Bridgeport, Ca	APR-AUG	66.0	110.0	166	200	133				
WEST WALKER RIVER near Coleville, Ca	APR-JUL	148.0	240.0	162	175	149	2873			
WALKER LAKE RISE (LOW 1/6/86)	LOW-HIGH	-0.0	6.7	294	364	242				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE THIS YEAR	USEABLE LAST YEAR	USEABLE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE	
BRIDGEPORT RESERVOIR	47.5	31.1	36.0	30.8	E. CARSON RIVER	6	202	117
LAHONTAN RESERVOIR	295.1	290.7	274.0	228.4	W. CARSON RIVER	5	179	117
TOPAZ RESERVOIR	59.4	48.5	35.0	39.8	CARSON Rv. at Carson City	4	196	118
					CARSON Rv. at Ft. Churchi	4	196	118
					E. WALKER Rv. nr Bridgepo	3	247	132
					W. WALKER Rv. nr Colevill	4	247	132
					WALKER LAKE RISE	4	247	132

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

HUMBOLDT BASIN

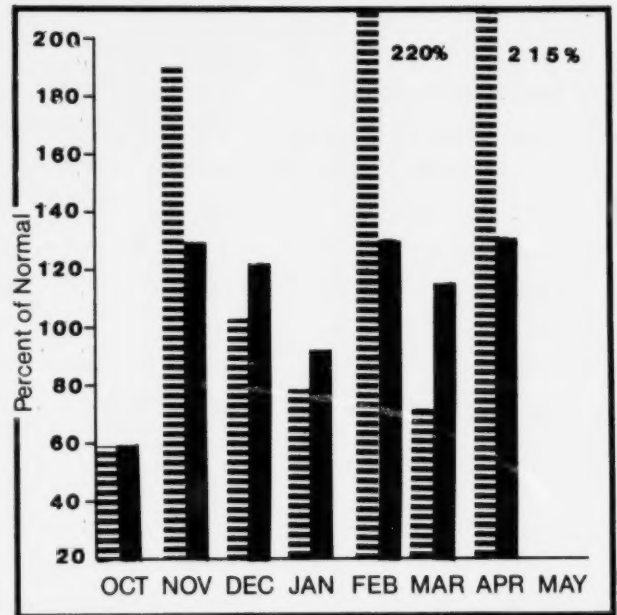
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - -
Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

May 1 snowpack accumulations are 120 percent of average. Snowpack at lower elevations is below average, but upper elevation snowpack is above average. Rye Patch Reservoir storage is 150 percent of average with the reservoir currently 95 percent of capacity. April precipitation was 200 percent of average. The April through July streamflow forecast for Humboldt River at Palisade, Nevada, has been reduced to 275,000 acre feet which is 120 percent of average.

For more information contact your local Soil Conservation Service office.

HUMBOLDT BASIN

STREAMFLOW FORECASTS

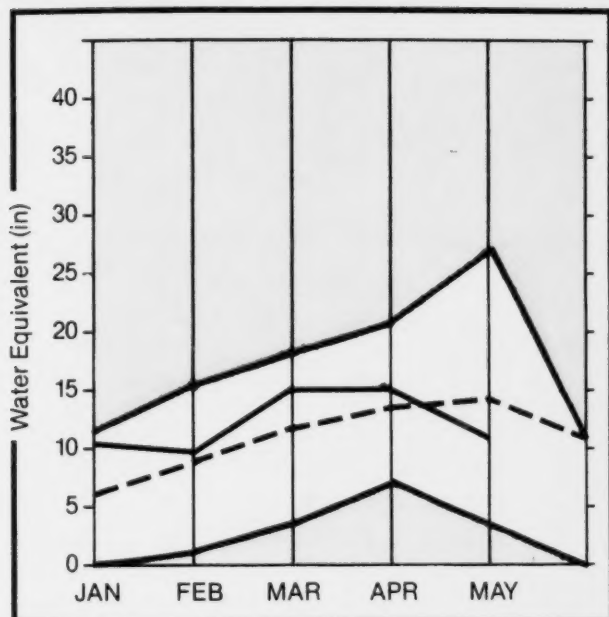
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
HUMBOLDT RIVER at Palisade	APR-JUL	230.0	275.0	119	206	33				
HUMBOLDT RIVER at Comus	APR-JUL	173.0	220.0	127	234	20				
S FORK HUMBOLDT RIVER at Dixie	APR-JUL	75.0	96.0	128	213	43				
NF HUMBOLDT RIVER at Devils Gate	APR-JUL	34.8	42.0	120	193	49				
MARY'S RIVER nr Deeth	APR-JUL	36.9	45.0	121	179	65				
MARTIN CREEK nr Paradise Hv	APR-JUL	15.8	22.0	139	177	101				
LAHOILLE CREEK nr Lamoille	APR-JUL	28.7	35.0	121	157	87				
REESE RIVER nr Ione Hv	APR-JUL	6.6	6.0	90	182	0				
L. HUMBOLDT RIVER nr Paradise Valley	APR-JUL	9.7	12.0	123	165	82				
ROCK CREEK nr Bottle Mtn.	APR-JUL	16.0	22.0	137	225	50				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS		
RESERVOIR	USEABLE CAPACITY	THIS YEAR	USEABLE STORAGE LAST YEAR	AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE
RYE PATCH RESERVOIR	194.3	182.4	174.0	122.7	LAHOILLE CREEK	1	0 132
					S. FORK HUMBOLDT	4	684 125
					MARY'S RIVER	4	108 88
					N. FORK HUMBOLDT	3	54 74
					HUMBOLDT Rv. at Palisades	7	208 106
					HUMBOLDT RIVER at Comus	7	208 106
					LITTLE HUMBOLDT RIVER	3	58 117
					MARTIN CREEK	3	58 117
					REESE RIVER	1	71 109
					ROCK CREEK	2	2 6

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

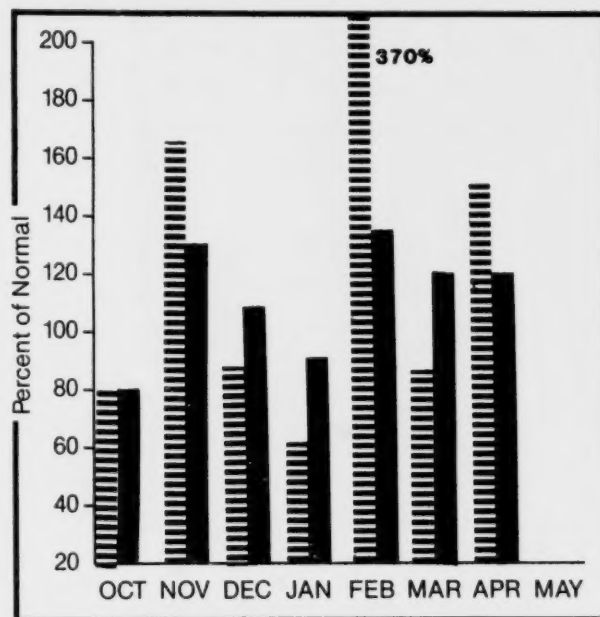
SNAKE & OUYHEE BASINS

Mountain snowpack* (inches)



*Based on selected stations

Precipitation* (percent of normal)



*Based on selected stations

Maximum



Average



Minimum



Current



Monthly precipitation



Year to date precipitation



WATER SUPPLY OUTLOOK:

Basin snowpack is 80 percent of average for May 1. The Snake River portion is 90 percent of average while the Owyhee River drainage in Nevada is 70 percent of average. Wildhorse Reservoir is 100 percent of capacity and 165 percent of average. Basin precipitation during April was 150 percent of average. Owyhee River near Owyhee, Nevada, will flow 90,000 acre feet, 105 percent of average.

For more information contact your local Soil Conservation Service office.

SNAKE & OUYHEE BASINS

STREAMFLOW FORECASTS

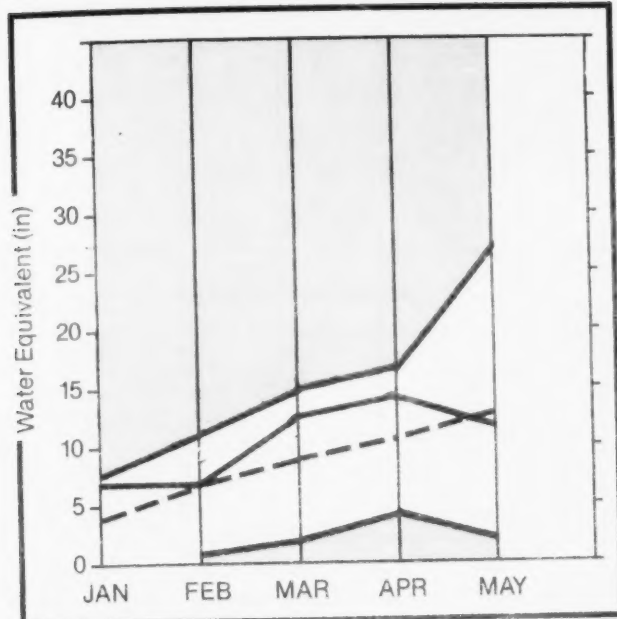
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
Owyhee River nr Gold Creek	APR-JUL	22.0	20.0	90	123	59				
Owyhee River nr Owyhee	APR-JUL	85.4	90.0	105	136	75				
S Fork Owyhee nr White Rock, Nv	APR-JUL	83.0	95.0	114	146	83				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	THIS YEAR	USEABLE STORAGE LAST YEAR	AVE.	WATERSHED	NO. COURSES AVER.D	THIS YEAR AS LAST YR.	% OF AVERAGE
WILDHORSE RESERVOIR	71.5	71.6	71.0	43.1	Owyhee River nr Owyhee	6	77	71
					Owyhee Rv. nr Gold Creek	2	0	4
					S. Fork Owyhee River	6	77	71
					Salmon Falls Creek	4	108	88

■Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

EASTERN NEVADA

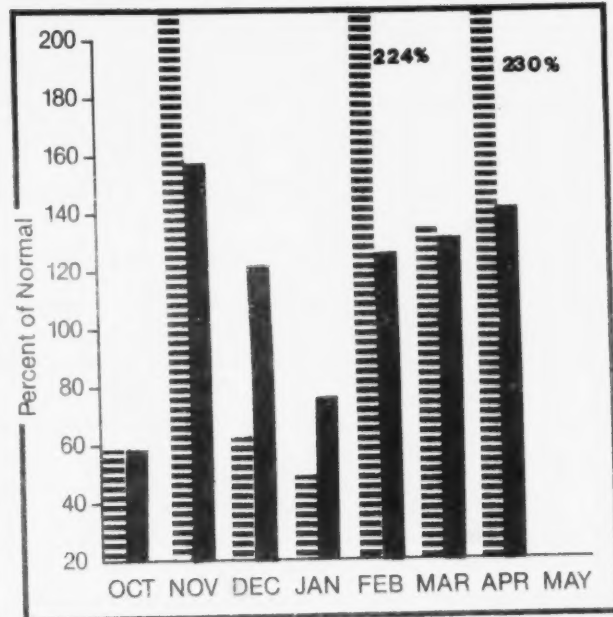
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - - -
Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

Monthly precipitation was 230 percent of average and contributed to a water year precipitation total of 140 percent of average. Streamflow forecasts remain constant for the April through July forecast period. Steptoe Creek near Ely, Nevada, is forecasted to flow 2,900 acre feet or 145 percent of average. Kingston Creek near Austin, Nevada, will flow 3,800 acre feet which is 115 percent of average while Franklin River near Arthur, Nevada will flow 6,800 acre feet.

For more information contact your local Soil Conservation Service office.

EASTERN NEVADA

STREAMFLOW FORECASTS

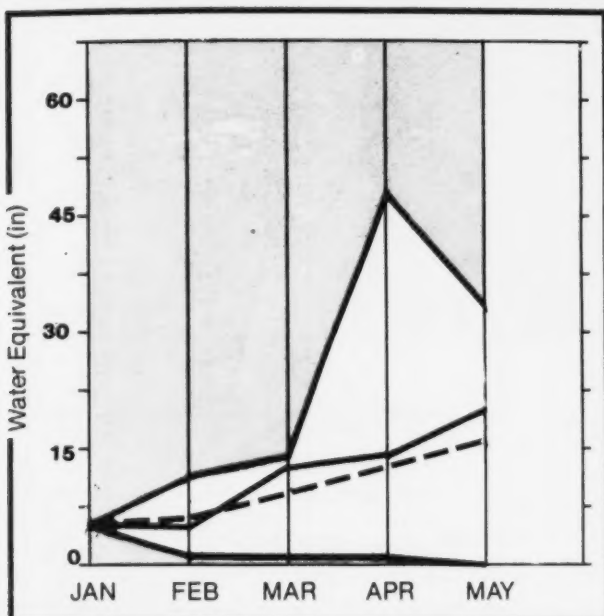
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
STEPTOE CREEK nr Ely	APR-JUL	2.0	2.9	145	250	50				
KINGSTON CREEK nr Austin, Nv	APR-JUL	3.3	3.8	115	212	30				
FRANKLIN RIVER nr Arthur	APR-JUL	5.9	6.8	115	203	34				

RESERVOIR STORAGE (1000AF)				WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	THIS YEAR	USEABLE STORAGE LAST YEAR AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	% OF AVERAGE
				FRANKLIN RIVER	1	0	99
				KINGSTON CREEK	1	71	109
				EASTERN NEVADA	1	103	75
				STEPTOE VALLEY	1	103	75

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

NORTHERN GREAT BASIN

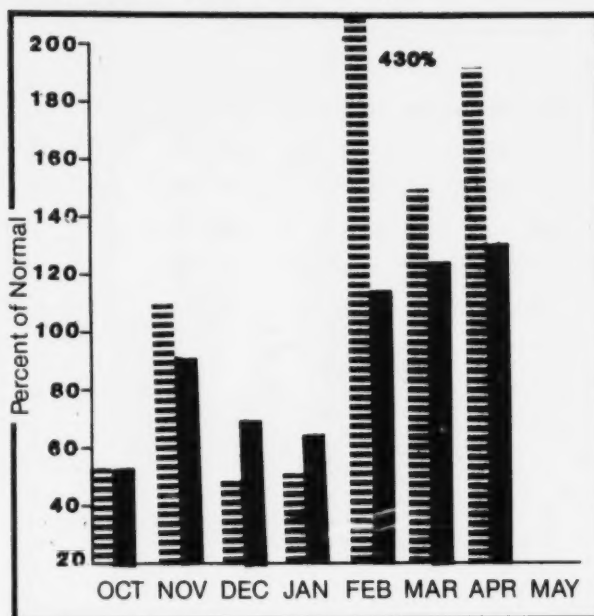
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - -
Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Streamflow forecasts remain the same as those issued April 1. Bidwell Creek near Fort Bidwell, California, will flow 14,500 acre feet or 120 percent of average. Deep Creek near Cedarville, California, and Eagle Creek near Eagleville, California, are forecast to flow 125 percent of average. Precipitation during April was 190 percent of average and is 130 percent of average for the water year.

For more information contact your local Soil Conservation Service office.

NORTHERN GREAT BASIN

STREAMFLOW FORECASTS

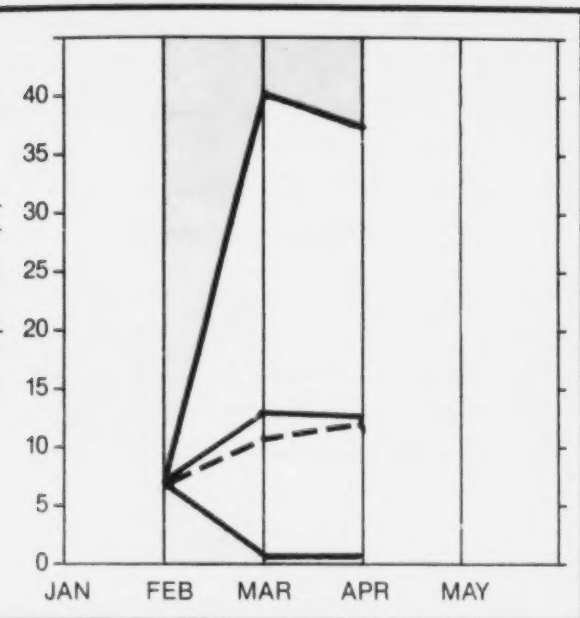
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
BIDWELL CREEK nr Fort Bidwell	APR-JUL	12.0	14.5	120	150	92				
DEEP CREEK nr Cedarville, Ca	APR-JUL	3.6	4.5	124	167	83				
EAGLE CREEK nr Eagleville, Ca	APR-JUL	4.3	5.5	127	163	93				
MILL CREEK nr Cedarville, Ca	APR-JUL	4.1	5.0	121	146	98				
QUINN RIVER nr McDermitt, Nv	APR-JUL	16.0	14.0	87	131	44				
E. FORK QUINN RIVER nr McDermitt	APR-JUL	13.0	11.0	84	123	46				
MCDERMITT CREEK nr McDermitt	APR-JUL	12.0	10.0	83	125	42				

RESERVOIR STORAGE (1000AF)		WATERSHED SNOWPACK ANALYSIS		
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE
	THIS YEAR	LAST YEAR AVE.		
			BIDWELL	1 313 38
			MILL CREEK	1 313 38
			DEEP CREEK	1 313 38
			EAGLE CREEK	1 313 38
			QUINN RIVER	2 110 124
			E. FORK QUINN	2 110 124
			MCDERMITT CREEK	2 110 124

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

SOUTHERN NEVADA

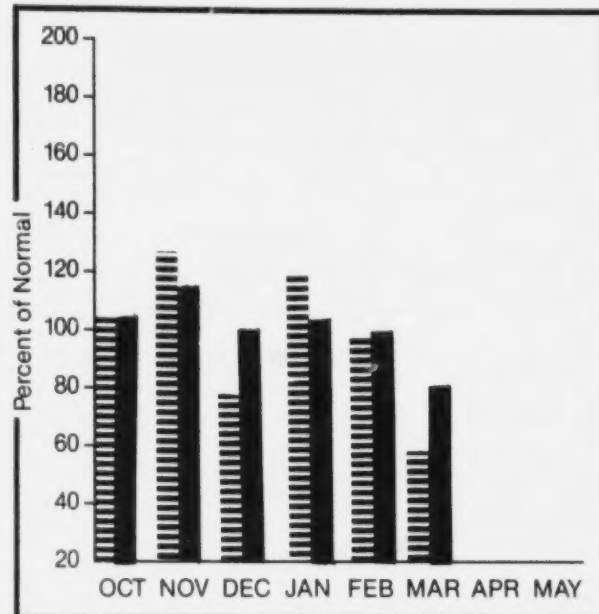
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - -
Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Streamflow forecasts are good for the basin. Virgin River at Hurricane, Utah, is forecasted at 100 percent of average while the flow at Littlefield, Arizona, will be 35,000 acre feet or 95 percent of average for the May through June forecast period. Inflow into Lake Powell will be 168 percent of average for the April through July period.

For more information contact your local Soil Conservation Service office.

SOUTHERN NEVADA

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
VIRGIN RIVER near Hurricane, UT	APR-JUL	62.0	62.0	100	148	52				
LAKE POWELL inflow	APR-JUL	7462.0	12600.0	168	192	148				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE	
LAKE MOHAVE	1810.0	1600.9	1760.1	---	VIRGIN Rv. at Littlefield	4	104	79
LAKE MEAD	26159.0	23616.0	23816.0	---	VIRGIN Rv. at Hurricane	4	104	79

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.



The Following Organizations Cooperate With The Soil Conservation Service In Snow Survey Work

STATE

California Cooperative Snow Surveys
California Department of Parks and Recreation
California Department of Water Resources
Colorado River Commission of Nevada
Idaho Cooperative Snow Surveys
Nevada Association of Conservation Districts
Nevada Department of Conservation & Natural Resources
 Division of Water Resources
 Nevada State Forester
 Division of Conservation Districts
Oregon Cooperative Snow Surveys
University of Nevada, Desert Research Institute
Utah Cooperative Snow Surveys

FEDERAL

Bureau of Reclamation
Forest Service
Geological Survey
Soil Conservation Service
U.S. District Court - Federal Water Master
NOAA, National Weather Service

PRIVATE

Nevada Irrigation District
Owyhee Project North Board of Control
Owyhee Project South Board of Control
Pacific Gas and Electric Company
Pershing County Water Conservation District
Sierra Pacific Power Company
Truckee - Carson Irrigation District
Walker River Irrigation District
Washoe County Water Conservancy District

Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

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SOIL CONSERVATION SERVICE
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